ORDER NO. VRD8710M159

Service Manual

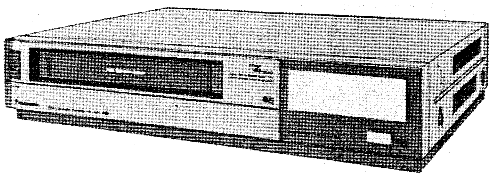
Video Cassette Recorder

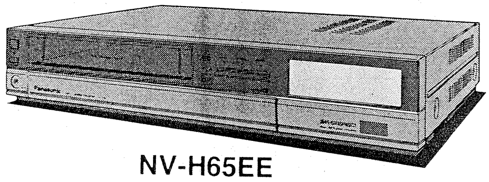
Panasonic VHS HQ
PAL

NV-G21EE

Panasonic VHS Hi-Fi HQ
PAL

NV-H65EE


NV-G21EE


NV-H65EE

SPECIFICATIONS

ITEM	SPECIFICATION
POWER	SOURCE: 220V 50/60Hz
	CONSUMPTION: 25 watts (NV-G21EE) 29 watts (NV-H65EE)
RECORDING SYSTEM	2 rotary heads, helical scanning system
	PAL
TV TUNER SYSTEM	VHF I: CH 2~CH 4 (PAL-B) CH 1~CH 5 (SECAM-D) VHF III: CH 5~CH 12 (PAL-B) CH 6~CH 12 (SECAM-D) UHF: CH21~CH69 (PAL-G/SECAM-K)
RF OUT SYSTEM	UHF: CH 36±4 (PAL-G) 73±3dBμ, 75Ω terminated
VIDEO	HEADS: 4 rotary heads 1 pair for recording and play back (L-R heads) 1 pair for video trick play with L' and R' heads (field still and fine slow) (NV-G21EE) 3 rotary heads 1 pair for recording and playback (L-R heads) 1 pc. of head for video trick play with L' head (field still and field show) (NV-H65EE)
	INPUT: VIDEO IN Connector (BNC type) 1.0Vp-p, 75Ω terminated EURO AV Connector (21 pin) 1.0Vp-p, 75Ω terminated (NV-H65EE)
	OUTPUT: VIDEO OUT Connector (BNC type) 1.0Vp-p, 75Ω terminated EURO AV Connector (21pin) 1.0Vp-p, 75Ω terminated (NV-H65EE)

ITEM	SPECIFICATION
AUDIO	HEAD: 1 stationary head 2 rotary heads (NV-H65EE)
	INPUT: AUDIO IN Connector (Phono type) More than −10 dBV (316 mV), more than 50kΩ EURO AV Connector (21pin) More than −10 dBV (316 mV), more than 10kΩ (NV-H65EE)
	OUTPUT: AUDIO OUT Connector (Phono type) −8 dBV (400 mV), less than 1 kΩ EURO AV Connector (21 pin) −8 dBV (400 mV), Less than 1kΩ (NV-H65EE)
TAPE FORMAT	VHS Cassette Tape (Tape width 12.7 mm)
TAPE SPEED	23.39 mm/s Record/Playback Time: 4 hours with 240 min. type tape FF/REW Time: 5.5 min. with 180 min. type tape
DIMENSIONS	380 (W) × 82 (H) × 342 (D) mm (NV-G21EE) 430 (W) × 82 (H) × 352 (D) mm (NV-H65EE)
WEIGHT	5.1 kg (NV-G21EE) 6.0 kg (NV-H65EE)
STANDARD ACCESSORIES	1 PC. DIN-RF Cable 1 PC. Wireless Remote Controler 1 PC. Digital Scanner (NV-G21EE) 1 PC. Programme Sheet (NV-G21EE) 1 PC. AC Cord (NV-G21EE) 2 PCS. Audio Cables (NV-H65EE)

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

Matsushita Electric Trading Co., Ltd.

INTRODUCTION

This service manual contains technical information which will allow service personnels to understand and service the VHS Cassette Recorder Model NV-G21EE, NV-H65EE.
This service manual is based on NV-H21EG/B/EO/EV, H65EG/B/EO/EV.
Therefore please refer to the descriptions which are shown in NV-G21EG/B/EO/EV service manual Order No. VRD8701104 and NV-H65EG/B/EO/EV serivce manual, Order No. VRD8610143.

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1-1. COMPARISON CHART (NV-G21EE)

This chart is described different part from the basic model NV-G21EG to the new model NV-G21EE.

Notes: 1. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety.
When replacing any of these components, use only the same type.

Mechanical Replacement Part (A).. Added, (C).. Changed, (D).. Deleted

Ref. No.	NV-G21EG (K) Part No.	NV-G21EE Part No.	Pcs/Set	Part Name & Description	Remarks
6 (1)	VEG0479	VEG0595	1	CYLINDER UNIT	(C) ⚠●
300 (4)	VYP1891	VYP1895	1	TOP PANEL UNIT	(C)
301 (4)	VHD0304	VHD0304	4→2	TOP PANEL SCREW	(C)
304 (4)	VMP1125	—	1→0	TOP HOLDER ANGLE	(D)
327 (4)	VMP1037	VMP1037	2→1	TOP HOLDER ANGLE (L)	(C)
334 (4)	VYP1879	VYP2185	1	FRONT PANEL UNIT	(C)
335 (4)	VYF1025	VYF1035	1	FRONT DOOR UNIT	(C)
337 (4)	VHD0059	VHD0059	7→5	BOTTOM SCREW	(C)
339 (4)	VMZ1005	—	1→0	BARRIER	(D)
400 (5)	VQT2203	VQT2528	1	OPERATING INSTRUCTIONS (ENGLISH/GERMAN/FRENCH)	(C) ⚠
		VQT2529	1	OPERATING INSTRUCTIOS (RUSSIAN/POLISH)	(C) ⚠
403 (5)	VEQ0534	VEQ0539	1	REMOTE CONTROL UNIT	(C)
406 (5)	VPG3309	VPG3830	1	PACKING CASE	(C)
408 (5)	VJA0391	VJA0449	1	AC CORD	(C)
409 (5)	VEQ0549	VEQ0639	1	DIGITAL SCANNER	(C)
410 (5)	VQC1010	VQC1124	1	PROGRAMME SHEET	(C)
411 (5)	VQT2237	VQT2538	1	OPERATING INSTRUCTIONS (DIGITAL SCANNER)	(C) ⚠
450 (6)	VYK1589	VYK1596	1	TOP CASE UNIT	(C)
454 (6)	VSP0426	VSP0247	1	RUBBER CONTACT	(C)
470 (7)	VYK1628	VYK1886	1	CASE (A) UNIT	(C)
470 (7)	VYK1626	VYK1810	1	CASE (B) UNIT	(C)
471 (7)	VGU3710	VGU4040	1	TRANSMISSION BUTTON	(C)
473 (7)	VJR0270	VJR0395	1	ELECTRODE (A)	(C)
474 (7)	VJR0271	VJR0396	1	ELECTRODE (B)	(C)
479 (7)	VSQ0533	VSQ0567	1	SENSOR UNIT	(C)

Electrical Replacement Parts (A).. Added, (C).. Changed, (D).. Deleted

Ref. No.	NV-G21EG Part No.	NV-G21EE Part No.	Pcs/Set	Part Name & Description	Remarks
	VEP03440A	VEP03440F −	1	MAIN C.B.A.	(C) ⚠
	VEP03430A	VEP03432B −	1	INPUT SELECT PACK C.B.A.	(C)
	VEP03431A	—	1→0	SUB INPUT SELECT PACK C.B.A	(D)
	VEP06409A	VEP06409C −	1	OPERATION C.B.A	(C)
	VEP07394A	VEP07394C −	1	TIMER C.B.A.	(C)
	VEP07374A	VEP07445A −	1	TV DEMODULARTOR PACK C.B.A.	(C)
	VEP07375A	VEP07446A −	1	TUNER ARU PACK C.B.A	(C)
	—	VEP07447A −	0→1	DECODER PACK C.B.A.	(A)
	VEP01264H	VEP01264J +	1	POWER C.B.A.	(C) ⚠
	VEP07395A	VEP07395C −	1	CHANNEL SELECT C.B.A.	(C)
	VEP07368C	—	1→0	VPS C.B.A.	(D)
	VEP05097E	VEP05106B −	1	HEAD AMP PACK C.B.A.	(C)
	VEP00H22A	VEP00K26A −	1	CYLINDER DRIVE C.B.A.	(C)
	VEP00H30A	VEP00J52A +	1	MECHANISM CONNECTION C.B.A.	

Electrical Replacement Parts (A).. Added, (C).. Changed, (D).. Deleted

Ref. No.	NV-G21EG Part No.	NV-G21EE Part No.	Pcs/Set	Part Name & Description	Remarks
	VEP66019D	VEP66033C	1	DIGITAL SCANNER C.B.A.	(C)
	ENC87956	ENC87959	1	RF CONVERTER	(C)
	TNV57470F1	TVN79461F2	1	TUNER	(C)
	VEP03440F	MAIN C.B.A.			
	VEP03430A	VEP03432A	1	INPUT SELECT PACK C.B.A.	(C)
	VEP03431A	—	1→0	SUB INPUT SELECT PACK C.B.A.	(D)
	VEP07374A	VEP07445A	1	TV DEMODULATOR PACK C.B.A.	(C)
	VEP07375A	VEP07446A	1	TUNER ARU PACK C.B.A.	(C)
	—	VEP07447A	0→1	DECODER PACK C.B.A.	(A)
C3014	ECQB1H103JH	—	1→0		(D)
C3016	—	ECCW1H100DC	0→1	C.CAPACITOR 50V 10P	(A)
C3506	ECKF1H221KB	—	1→0		(D)
C3507	ECQB1H333JH	—	1→0		(D)
C3508	ECKF1H102KB	—	1→0		(D)
C3509	ECEA0JU331	—	1→0		(D)
C4019	—	ECQBIH333KH	0→1	MYLAR 50V 0.033μ	(A)
C4026	—	ECCF2H121K	0→1	CERAMIC 500V 120P	(A)
C6026	—	ECQB1H103JH	0→1	MYLAR 50V 0.01μ	(A)
C6030	ECEA1CK101	—	1→0		(D)
D6032	MA165	—	1→0		(D)
D6033	MA165	—	1→0		(D)
FL3501	ELB4H020	—	1→0		(D)
IC6001	MNI15362VJR	MNI15362VBR	1	IC	(C)
L3503	VLQEL05F1R0K	—	1→0		(D)
L3504	VLQEL06F471K	—	1→0		(D)
LR3505	VLQEL05F2R7	—	1→0		(D)
Q2001	2SB641	2SA1309	1	TRANSISTOR	(C)
Q2002	2SD636	2SC3311	1	TRANSISTOR	(C)
Q3001	2SB641	2SA1309	1	TRANSISTOR	(C)
Q3003	2SC2206	2SC3314	1	TRANSISTOR	(C)
Q3502	2SB641	—	1→0		(D)
Q4001	2SD639	2SC1423A	1	TRANSISTOR (R)	(C)
Q4002	2SD637	2SC3311A	1	TRANSISTOR	(C)
Q4003	2SD637	2SC3311A	1	TRANSISTOR	(C)
Q4004	2SB642	2SA1309A	1	TRANSISTOR	(C)
Q6007	2SB790	2SA1512	1	TRANSISTOR	(C)
Q6009	2SB790	2SA1512	1	TRANSISTOR	(C)
Q6016	2SD1275	2SD1275P	1	TRANSISTOR	(C)
Q6018	2SD973	2SD592	1	TRANSISTOR	(C)
Q6020	2SC1384	—	1→0		(D)
Q6021	2SC1384	—	1→0		(D)
Q6199	—	2SC3311	0→1	TRANSISTOR	(A)
Q8001	2SD636	2SC3311	1	TRANSISTOR	(C)
QR2002	UN1212	UN4212	1	TRANSISTOR-RESISTOR	(C)
QR2003	UN1213	UN4213	1	TRANSISTOR-RESISTOR	(C)
QR3001	UN1111	UN4111	1	TRANSISTOR-RESISTOR	(C)
QR3002	UN1213	UN4213	1	TRANSISTOR-RESISTOR	(C)
QR3003	UN1212	UN4212	1	TRANSISTOR-RESISTOR	(C)
QR6001	UN1212	UN4212	1	TRANSISTOR-RESISTOR	(C)
QR6002	UN1211	—	1→0		(D)
QR6004	UN1213	UN4213	1	TRANSISTOR-RESISTOR	(C)
QR6006	UN1111	UN4111	1	TRANSISTOR-RESISTOR	(C)
QR6008	UN1111	UN4111	1	TRANSISTOR-RESISTOR	(C)
QR6011	UN1212	UN4212	1	TRANSISTOR-RESISTOR	(C)
QR6012	UN1113	UN4113	1	TRANSISTOR-RESISTOR	(C)

Electrical Replacement Parts (A).. Added, (C).. Changed, (D).. Deleted

Ref. No.	NV-G21EG Part No.	NV-G21EE Part No.	Pcs/Set	Part Name & Description	Remarks
QR6013	UN1213	UN4213	1	TRANSISTOR-RESISTOR	(C)
QR6014	UN1211	UN4211	1	TRANSISTOR-RESISTOR 1/16W	(C)
R3023	—	ERJ6GMYJ102	0→1	1/16W 1K	(A)
R3511	—	ERDS2TJ750	0→1	CARBON 1/4W 75	(A)
R3512	ERDS2TJ750	—	1→0		(D)
R3513	ERDS2TJ101	—	1→0		(D)
R3514	ERDS2TJ242	—	1→0		(D)
R3516	ERDS2TJ242	—	1→0		(D)
R3517	ERDSTJ471	—	1→0		(D)
R4023	ERJ6GMYJ333	ERJ6GMYJ273	1	CHIP 1/16W 27K	(C)
R6073	ERJ6GMYJ391	ERJ6GMYJ271	1	CHIP 1/16W 270	(C)
R6074	ERJ6GMYJ561	ERJ6GMYJ121	1	CHIP 1/16W 120	(C)
R6097	ERJ6GMYJ152	—	1→0		(D)
R6098	ERJ6GMYJ152	—	1→0		(D)
R6099	EDRS2TJ103	—	1→0		(D)
R6199	—	ERJ6GMYJ473	0→1	CHIP 1/16W 47K	(A)
SW3502	ESD3228	—	1→0		(D)
	VEP06409C	OPERATION C.B.A.			
D6201	LN81RCPHL	LN28RCPP	1	LED	(C)
R6201	ERJ6GMYJ471	ERJ6GMYJ181	1	CHIP 1/16W 180	(C)
SW6204	—	ESD14314	0→1	SWITCH	(A)
	VEP07394C	TIMER C.B.A.			
D7527	MA165	—	1→0		(D)
D7528	MA165	—	1→0		(D)
QR7501	UN1113	UN4113	1	TRANSISTOR-RESISTOR	(C)
QR7502	UN1213	UN4213	1	TRANSISTOR-RESISTOR	(C)
QR7503	UN1112	UN4112	1	TRANSISTOR-RESISTOR	(C)
	VEP07395C	CH SELECT C.B.A.			
C7567	ECKF1H103ZF	—	1→0		(D)
C7575	—	ELEA1CK101	0→1	ELECTROLYTIC 16V 100μ	(A)
D7561	—	MA165	0→1	DIODE	(A)
IC7551	AN5034	AN5033	1	IC	(C)
QR7553	UN1112	—	1→0		(D)
QR7554	UN1112	—	1→0		(D)
QR7555	UN1213	—	1→0		(D)
QR7561	UN1213	—	1→0		(D)
R7563	ERDS2TJ332	—	1→0		(D)
R7566	—	ERDS2TJ334	0→1	CARBON 1/4W 330K	(A)
R7567	—	ERDS2TJ104	0→1	CARBON 1/4W 100K	(A)
R7570	ERDS2TJ103	—	1→0		(D)
R7584	ERDS2TJ393	ERDS2TJ184	1	CARBON 1/4W 180K	(C)
R7586	ERDS2TJ563	ERDS2TJ474	1	CARBON 1/4W 470K	(C)
R7597	—	ERDS2TJ101	0→1	CARBON 1/4W 100	(A)
R7599	ERDS2TJ103	—	1→0		(D)
	VEP01264J	POWER C.B.A.			
R1029	—	ERC12GM334	0→1	S.RESISTOR 1/2W 330K	(A)

1-2. COMPARISON CHART (NV-H65EE)

This chart is described different part from the basic model NV-H65EG to the new model NV-H65EG.

Notes: 1. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety.
When replacing any of these components, use only the same type.

Mechanical Replacement Part (A).. Added, (C).. Changed, (D).. Deleted

Ref. No.	NV-H65EG (BLACK) Part No.	NV-H65EE Part No.	Pcs/Set	Part Name & Description	Remarks
1 (1)	VHD0268	VHD0141	2	HEAD AMP SET SCREW	(C)
6 (1)	VEG0471	VEG0557	1	CYLINDER UNIT	(C) ⚠
10 (1)	VSC1806	VSC2188	1	CYLINDER C.B.A. SHIELD PLATE	(C)
34 (1)	VBR0102	VBR0125	1	A/C HEAD	(C)
305 (4)	VJH0417	VJH0418	1	RF & ANT. BOARD	(C)
312 (4)	VJA0391	VJA0449	1	AC CORD	(C) ⚠
314 (4)	VSC1827	VSC2178	1	SHIELD CASE (L)	(C)
315 (4)	VMZ0902	VMZ1083	1	BARRIER (A)	(C)
316 (4)	VMZ0916	VMZ1084	1	BARRIER (B)	(C)
320 (4)	VMZ0876	VMZ1089	1	INSULATION SHEET	(C)
322 (4)	VMZ0917	VMZ1085	1	BARRIER (C)	(C)
323 (4)	VMZ0918	VMZ1086	1	BARRIER (D)	(C)
332 (4)	VGP1489	VYP1813	1	SUPPORT PANEL (R) UNIT	(C)
334 (4)	VYP1792	VYP2104	1	FRONT PANEL UNIT	(C)
335 (4)	VYF0959	VYF0963	1	FRONT DOOR UNIT	(C)
400 (5)	VQT2069	VQT2493	1	OPERATING INSTRUCTIONS (ENGLISH/GERMAN/FRENCH)	(C) ⚠
400 (5)	VQT2069	VQT2494	1	OPERATING INSTRUCTIONS (RUSSIAN/POLISH)	(C) ⚠
403 (5)	VEQ0498	VEQ0499	1	REMOTE CONTROL UNIT	(C)
406 (5)	VPG3057	VPG3782	1	PACKING CASE	(C)
450 (6)	VYK1442	VYK1441	1	TOP CASE UNIT	(C)
454 (6)	VJR0246	VJR0247	1	RUBBER CONTACT	(C)
	—	VPK0668	0→1	ACCESSORIES CUSHION	(A)
	—	VPN1822	0→1	ACCESSORIES PACKING CASE	(A)

Electrical Replacement Parts (A).. Added, (C).. Changed, (D).. Deleted

Ref. No.	NV-H65EG Part No.	NV-H65EE Part No.	Pcs/Set	Part Name & Description	Remarks
	VEP03390A	VEP03390J	1	MAIN C.B.A.	(C) ⚠
	VEP04173A	VEP04173B	1	INPUT SELECT PACK C.B.A.	(C)
	VEP07362A	VEP07362B	1	CHANNEL SELECT PACK C.B.A.	(C)
	VEP06382A	VEP06382D	1	OPERATION C.B.A	(C)
	VEP07378A	VEP07378C	1	TIMER C.B.A.	(C)
	VEP00H51B	VEP00H51N	1	INTERFACE (DEMODU UNIT) C.B.A.	(C)
	VEP07357A	VEP07445A	1	DEMODULATOR PACK C.B.A.	(C)
	VEP07358A	VEP07446A	1	TUNER/ARU PACK C.B.A.	(C)
	VEP05359A	VEP07447A	1	DECODER C.B.A.	(C)
	VEP01264A	VEP01264D	1	POWER C.B.A.	(C) ⚠
	VEP00H69A	VEP00H69B	1	HEADPHONE C.B.A.	(C)
	ENC87956	ENC87959	1	RF CONVERTER	(C) ⚠
	VEP00H22A	VEP00K62A	1	CYLINDER DRIVE C.B.A.	(C)
	VEP00H34A	VEP00K27A	1	PHOTO TR(T) C.B.A.	(C)
	TVN57470F1	TNV79461F2	1	TUNER	(C) ⚠
	VEP00H30A	VEP00J52A	1	MECHANISM CONNECTION C.B.A.	(C) (A)
	VEP03390J	MAIN C.B.A.			
	VEP04173A	VEP04173B	1	INPUT SELECT PACK C.B.A.	(C)
	VEP07362A	VEP07362B	1	CHANNEL SELECT PACK C.B.A.	(C)
C1104	ELEA1CK101	—	1→0		(D)
C4573	—	ECCR1H101JL	0→1	CERAMIC 50V 100P	(A)
C4905	—	ECKF1H222KB	0→1	CERAMIC 50V 2200P	(A)
C4906	—	ECKF1H222KB	0→1	CERAMIC 50V 2200P	(A)
C4907	ECQB1H183JH	—	1→0		(D)
C4908	ECQB1H183JH	—	1→0		(D)
C4909	ECQB1H682JH	—	1→0		(D)
C4910	ECQB1H682JH	—	1→0		(D)
C4911	—	ECKF1HK101KB	0→1	CERAMIC 50V 100P	(A)
C4912	—	ECKF1HK101KB	0→1	CERAMIC 50V 100P	(A)
C4913	ECQB1H682JH	—	1→0		(D)
C4914	ECQB1H682JH	—	1→0		(D)
C4915	ECQB1H183JH	—	1→0		(D)
C4916	ECQB1H183JH	—	1→0		(D)
C7567	ECKF1H103ZF	—	1→0		(D)
D1103	MA165	—	1→0		(D)
IC7551	AN5034	AN5033	1	IC	(C)
L4901	VLQEL05F102K	—	1→0		(D)
L4902	VLQEL05F102K	—	1→0		(D)
L4903	VLQEL05F102K	—	1→0		(D)
L4904	VLQEL05F102K	—	1→0		(D)
Q1102	2SC1384	—	1→0		(D)
Q1103	2SC1384	—	1→0		(D)
QR1102	UN1211	—	1→0		(D)
QR7553	UN1112	—	1→0		(D)
QR7554	UN1112	—	1→0		(D)
QR7555	UN1213	—	1→0		(D)
QR7561	UN1213	—	1→0		(D)
R1102	ERDS2TJ152	—	1→0		(D)
R1103	ERDS2TJ152	—	1→0		(D)
R1104	ERDS2TJ103	ERDS2T0T	1		(C)
R4906	—	ERDS2TJ471	0→1	CARBON 1/4W 470	(A)
R4907	—	ERDS2TJ471	0→1	CARBON 1/4W 470	(A)
R4908	ERDS2TJ471	—	1→0		(D)
R4909	ERDS2TJ471	—	1→0		(D)
R4914	—	ERDS2TJ471	0→1	CARBON 1/4W 470	(A)
R4915	—	ERDS2TJ471	0→1	CARBON 1/4W 470	(A)

Electrical Replacement Parts (A).. Added, (C).. Changed, (D).. Deleted

Ref. No.	NV-H65EG Part No.	NV-H65EE Part No.	Pcs/Set	Part Name & Description	Remarks
R4916	ERDS2TJ471	—	1→0		(D)
R4917	ERDS2TJ471	—	1→0		(D)
R7563	ERDS2TJ332	—	1→0		(D)
R7566	—	ERDS2TJ334	0→1	CARBON 1/4W 330K	(A)
R7567	—	ERDS2TJ104	0→1	CARBON 1/4W 100K	(A)
R7570	ERDS2TJ103	—	1→0		(D)
R7599	ERDS2TJ103	—	1→0		(D)
S3903	VSS0196	—	1→0		(D)
	VEP06382D	OPERATION C.B.A.			
C6501	ECQBIH223KH	—	1→0		(D)
C6502	ECQB1H223KH	—	1→0		(D)
D6507	MA165	—	1→0		(D)
L6501	VLQEL05F121K	—	1→0		(D)
L6502	VLQEL05F121K	—	1→0		(D)
R6507	ERDS2TJ222	—	1→0		(D)
SW6506	—	ESD14314	0→1	SWITCH	(A)
	VEP00H51N	INTERFACE (DEMODU UNIT) C.B.A.			
C704	—	ECEA1HK010	0→1	ELECTROLYTIC 50V 1μ	(A)
	VEP01264D	POWER C.B.A.			
R1015	ERQ12HJ1R0P	ERQ12HKR68P	1	FUSE 1/2W 0.68	(C)
R1016	ERQ12HJ6R8	ERX3SJ5R6	1	METAL OXIDE 3W 5.6	(C)
	VEP00H69B	HEADPHONE C.B.A.			
C6302	ECQB1H103KH	—	1→0		(D)
C6305	ECQB1H103KH	—	1→0		(D)
L6301	VLQEL05F471K	—	1→0		(D)
L6303	VLQEL05F471K	—	1→0		(D)

2. ADJUSTMENT PROCEDURES (TV DEMODULATOR AND DECODER SECTION)

Since different models, such as NV-G21EE/NV-H65EE are combined into one procedure, pay attention not to adjust different specifications.

2-1. TEST EQUIPMENTS

To make adjustment completely, following equipments are required.

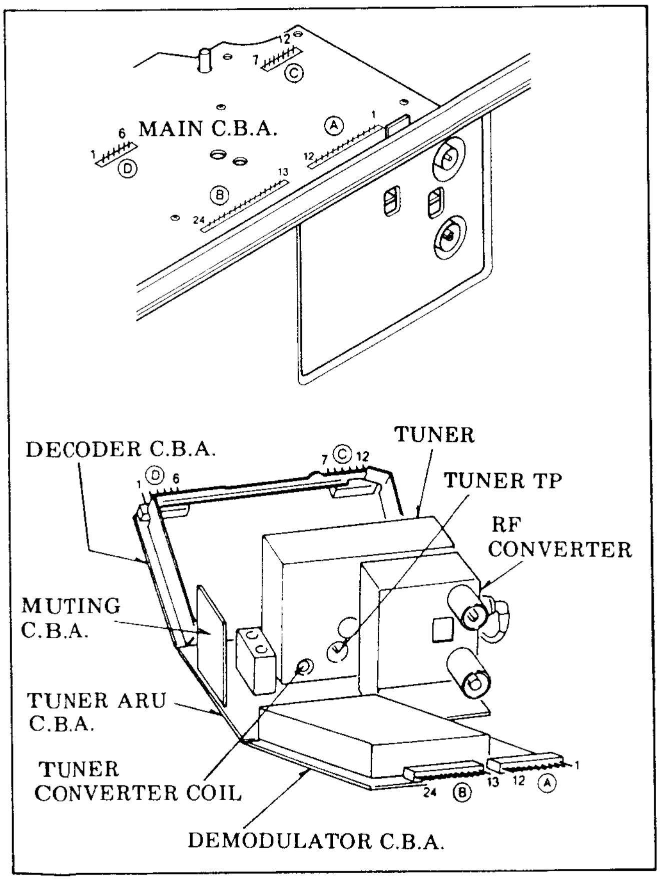
1. VIF SWEEP GENERATOR with the Trap Adjustor
   ....38.0MHz
2. SIF SWEEP GENERATOR
   ....5.5MHz +- 150KHz
   ....6.5MHz +- 150KHz
3. CW OSCILLATOR
   ....38.0MHz +- 100KHz
4. MONITOR SCOPE
5. OSCILLOSCOPE
6. DIGITAL VOLT METER
7. TUNING AMPLIFIER
8. MULTI VOICE MODULATOR (M.V.M)

NOTE:

1) Demodulator Unit Setting

To make this adjustment, set the Demodurator Unit as shown in Fig. E1.

First, remove the Demodulator Unit (Tuner, RF Converter, TV Demodulator C.B.A , Tuner ARU C.B.A, and Decodar C.B.A.) from the Main C.B.A. Then, connect the TV Demodulator Pack pin to solder the same portions of the Main C.B.A by lead jumper.



12
7
Ⓒ
6
MAIN C.B.A.
Ⓐ
1
Ⓓ
12
13
Ⓑ
24
DECODER C.B.A.
7 Ⓒ 12
1 Ⓓ 6
TUNER
TUNER TP
RF CONVERTER
MUTING C.B.A.
TUNER ARU C.B.A.
TUNER CONVERTER COIL
DEMODULATOR C.B.A.
24 Ⓑ 13 12 Ⓐ 1

Fig . E1

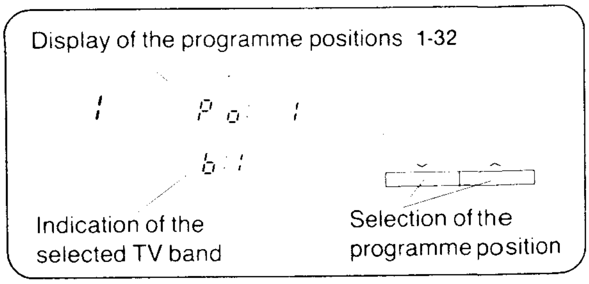
2) AFC ON-OFF

When you make AFC ON or OFF condition, set the VTR as follows.

(1) Press the PRESET/NORMAL button.
The indication on the Multi-Function Display changes from the clock indication to the position indication.

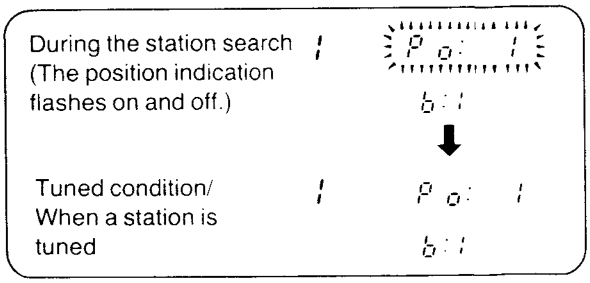
(2) Press the Channel Up or Down button to select a programme position (channel) which you want to tune to a TV station.

(3) Press the BAND/AFC button to select the "I", "III" or "U" position.



Display of the programme positions 1-32
1 Po 1
b 1
Indication of the selected TV band
Selection of the programme position

(4) Press the SEARCH (+) or (−) button until the picture of the desired station on your TV is satisfactory.
* If the Search (+) or (−) button is pressed while pressing the Quick Button, the stations will change quickly.



During the station search (The position indication flashes on and off.)
1 Po 1
b 1
Tuned condition/ When a station is tuned
1 Po 1
b 1

(5) Press the PRESET/NORMAL button again.
The indication on the Multi-Function Display changes to the clock indication.
Now AFC is "ON" condition.

(6) Press the FINE TUNING (+) or (-) button in a moment.
Now AFC is "OFF" condition.

(7) Press the BAND/AFC button.
Now AFC is "ON" condition again.

2-2. VIF SWEEP ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP707	T703, TUNER CONVERTER COIL		VIF SWEEP
TAPE	**M. EQ.**	**SPEC.**	
	VIF SWEEP/ MONITOR SCOPE	Refer to VIF Specification chart.	

1. Set the BAND SW for VHF position (III) and set the DC power supply for 15V and suplly it to BT Terminal of the Tuner after removing TV Demodulator C.B.A −(9) to cut off the BT voltage from IC7551−(2).
2. Set the AFC OFF condition.
3. Connect a jumper wire between AGC Terminal of the Tuner and GND.
4. Connect a capasitor (50V/1 uF) between TP703 and GND.
5. Connect the VIF sweep generator to the Tuner Test Point and connect the monitor scope to TP707 as shown in Fig. E2.
   (Marker Frequency of VIF Sweep waveform is shown in Fig. E3)

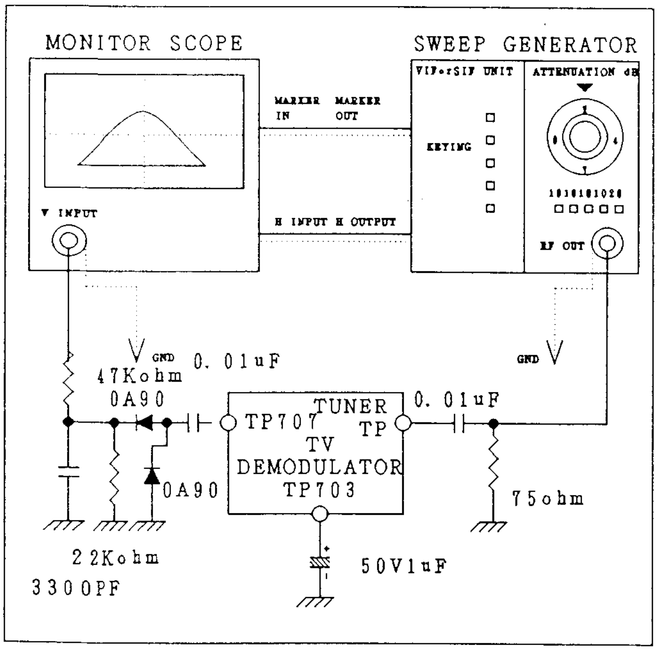

MONITOR SCOPE
SWEEP GENERATOR
VIF•rSIF UNIT
ATTENUATION dB
MARKER IN
MARKER OUT
KEYING
V INPUT
H INPUT
H OUTPUT
IF OUT
GND
0. 01uF
47Kohm
0A90
TUNER
TP707
TP
TV
DEMODULATOR
TP703
0. 01uF
0A90
75ohm
22Kohm
3300PF
50V1uF

Fig. E2

MARKER FREQUENCY		
	fs′	39.5MHz
	fp	38.0MHz
	f1	36.8MHz
	f2	35.03MHz
	fc	33.57MHz
	f3	32.82MHz
	fs	32.5/31.5MHz
	fp′	31.0/30.0MHz

Fig. E3

6. Adjust T703 so that the VCO beat is placed to centre of P1 and P2 mackers on the output waveform as shown in Fig. E4.

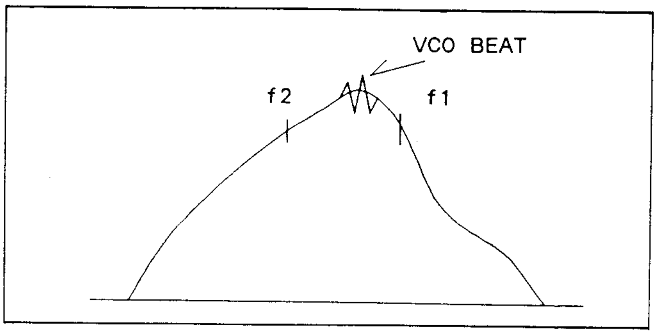


Fig. E4

7. Adjust the VIF sweep generator so that the output sweep waveform level becomes 0.3Vp−p on the monitor scope.
   Then release the attenuator of the VIF sweep generator for 20dB.
8. Connect the Adjustment Jig as shown in Fig. E19, then adjust VR of Adjustment Jig so that the output sweep waveform level becomes 0.3Vp−p on the monitor scope.

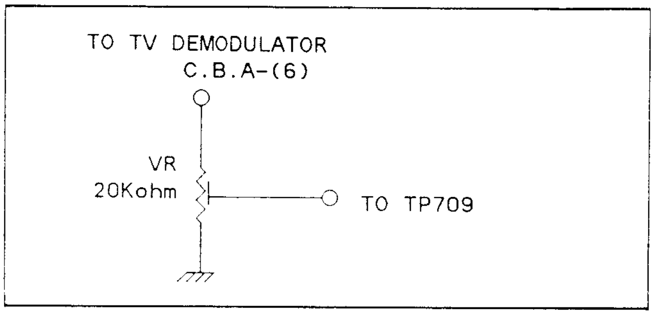
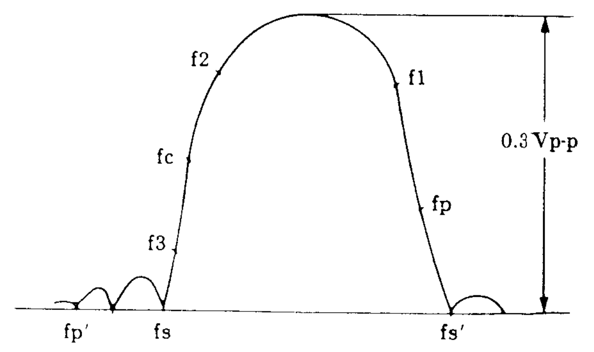

TO TV DEMODULATOR
C.B.A-(6)
VR
20Kohm
TO TP709

Fig. E5

9. Adjust the Tuner Converter Coil so that the waveform becomes as follows.



VIF WAVEFORM

SPECIFICATIONS		
	fp	30± 5%
	f1	80±20%
	f2	80±20%
	fc	25∼45%

Fig. E6

2-3. VCO ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP704	T703		
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER/ TUNING AMPLIFIER	38.0MHz±10kHz	

1. Connect a Resistor (1Kohm) between TP709 and GND.
2. Connect the frequency counter to TP704 through the tuning amplifier.
3. Adjust T703 so that the reading of frequency counter is 38.0MHz +- 10KHz.

2-4. AFC ADJUSTMENT

TP	ADJ.	MODE	INPUT
AFC TERMINAL OF THE TUNER	T704		CW SIGNAL (1Vrms)
TAPE	**M. EQ.**	**SPEC.**	
	CW OSCILLATOR/ D.V.M.	A=38.0MHz	

1. Set the BAND SW for the VHF position (III) and set the DC power supply for 15 +- 1V and supply it to BT Terminal of the Tuner after removing TV Demodulator C.B.A-(9) to cut of the BT voltage from IC7551-(2).
2. Set the CW oscillator output for "A" MHz and 1Vrms. Connect the CW oscillator output to the Tuner Test Point.
3. Connect the D.V.M. to the AFC terminal of the tuner.
4. Read the value "B" of the D.V.M., when the AFC is OFF condition.
5. Set the AFC ON condition and adjust T704 for "B" +- 0.3V.
6. Change the frequency of the CW oscillator to "A" (MHz) +- 100KHz, and confirm the difference of the AFC voltage is more than +-2V

2-5. SIF SWEEP ADJUSTMENT

TP	ADJ.	MODE	INPUT
AUDIO OUT (DECODAR C.B.A. 9pin of PK2)	T753 T752		SIF SWEEP
TAPE	**M. EQ.**	**SPEC.**	
	VIF SWEEP/ MONITOR SCOPE	A=5.5MHz(PAL/SECAM B.G MODE) A=6.5MHz(SECAM OIRT MODE)	

1. Set the DC power supply for 15 +- 1V and supply it to BT Terminal of the Tuner after removing TV Demodulator C.B.A -(9) to cut of the BT voltage from IC7551 - (2).
2. Set the AFC OFF condition.
3. Connect the SIF sweep generator to TP706 and connect the monitor scope to TV Demodulator C.B.A-(15) as shown in Fig. E7.

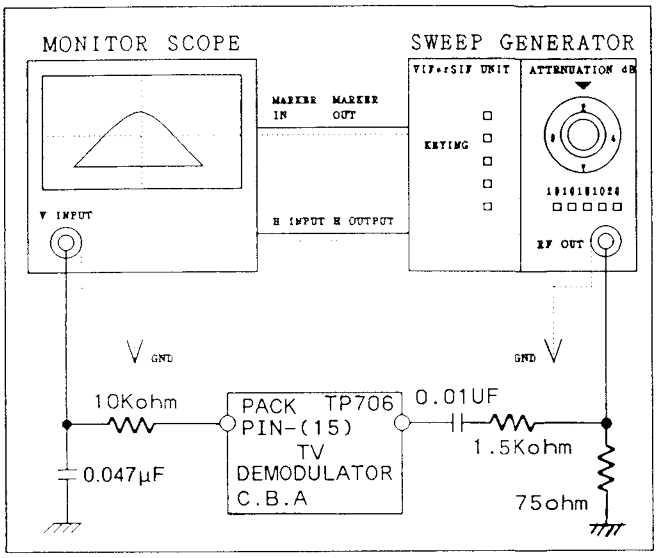
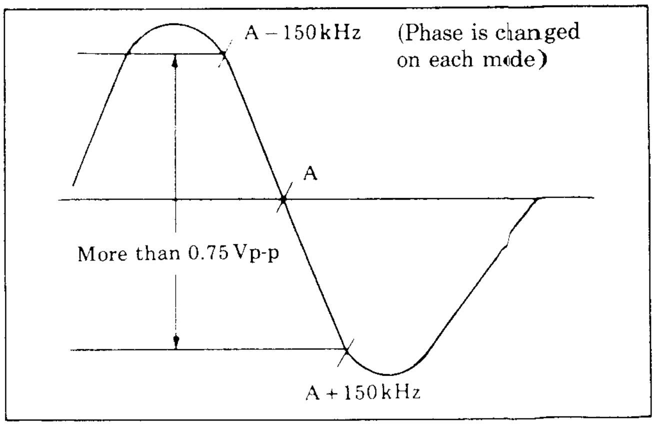


Fig. E7

4. Connect the Jig to both points TP709 and TV Demodulator C.B.A-(6). (Refer to Fig. E19) Adjust the VR of the Jig so that the DC level becomes less than 3V.
5. Set the output of SIF sweep generator for 250mVrms at no load.
6. Adjust VR751 so that the SIF waveform becomes center.
7. Set the TV System SW to PAL/SECAM B,G Mode and adjust T753 so that the attenuation of (A) trap becomes minimum. And adjust for maximum peak-to-peak amplitude of response "S" curve as shown in Fig. E8.



(Phase is changed on each mode)

Fig. E8

8. Set the TV System SW to SECAM OIRT Mode and adjust T572 so that the attenuation of (A) trap becomes minimum.
9. Confirm that the level between (A) +- 150KHz marker position is more than 0.75Vp-p.

TV SYSTEM SW	ADJ.	A
PAL/SECAM B.G	T753	5.5MHz
SECAM OIRT	T752	6.5MHz

Fig . E9

2-6. VIDEO FRQUENCY RESPONCE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TV DEMODULATOR C.B.A.-(13)	VR741		VIDEO SWEEP V. MOD: 70%, 75dBμ
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLOSCOPE/ VIDEO SWEEP/ M.V.M		

1. Supply a video sweep signal from the Video sweep generator to the input of the M.V.M.
2. Connect the output of the M.V.M to RF Input of the Deck.
3. Press the SEARCH (+) or (−) button so that the modulated RF signal on the channel 10 (SECAM OIRT) is able to receive.
4. Set the AFC ON condition.
5. Adjust VR741 so that the waveform at the Video out (TV Demodulator C.B.A−(13)) becomes as shown in Fig. E10.

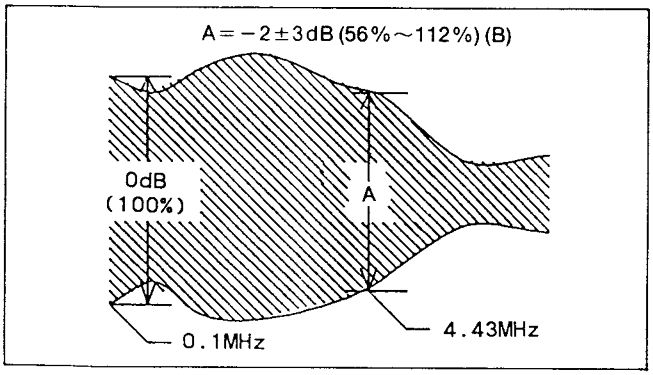


Fig. E10

2-7. AUDIO LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
AUDIO OUT (TV DEMODULATOR C.B.A.-(15))	VR752 VR751		VIDEO COLOUR BAR V. MODU: 87.5%, 75dBμ AUDIO 400Hz A. MODU: 30% (60%, 100%) (15kHz DEV)
TAPE	**M. EQ.**	**SPEC.**	
	RC OSC/ OSCILLOSCOPE or D.V.M/ M.V.M/ PATTERN GENERATOR		

1. Supply a video signal (COLOUR BAR pattern) from the pattern generator and 400Hz sine wave from RC oscillator to the input of the M.V.M.
2. Connect the output of the M.V.M to RF Input of the Deck.
3. Press the SEARCH (+) or (−) button so that the modulated RF signal on the channel 10 (SECAM OIRT) is able to receive.
4. Set the AFC ON condition.
5. Connect the oscilloscope or D.V.M to TV Demodulator C.B.A−(15).
6. Set the TV System SW to PAL/SECAM B,G Mode and adjust VR752 so that the audio level becomes as shown below.

DEV M. EQ.	30%	60%	100%
OSCILLOSCOPE	100±5mVp-p	200±5mVp-p	333±17mVp-p
D.V.M	35±2mVrms	70±4mVrms	117±6mVrms

7. Set the TV System SW to SECAM OIRT Mode and adjust VR751 so that the audio level becomes same as item 6.

2-8. AUDIO MUTING FREQUENCY ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC7651-④	VR7660		
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	15625±50Hz	

Note:
To make this adjustment, please prepare the following circuit as shown in Fig. E11.

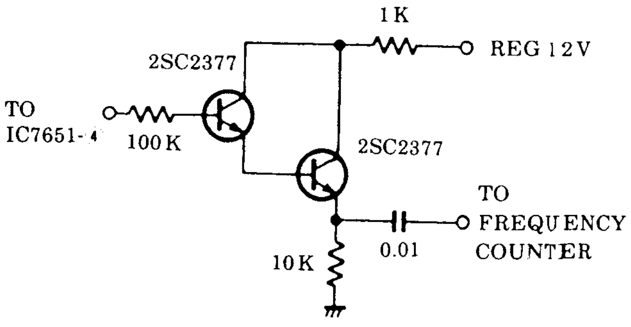
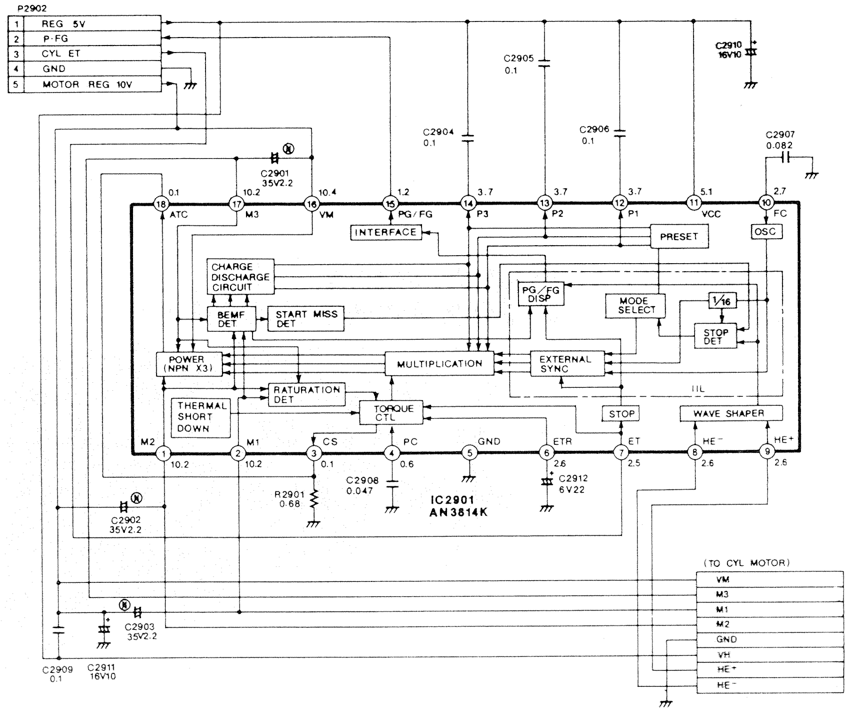
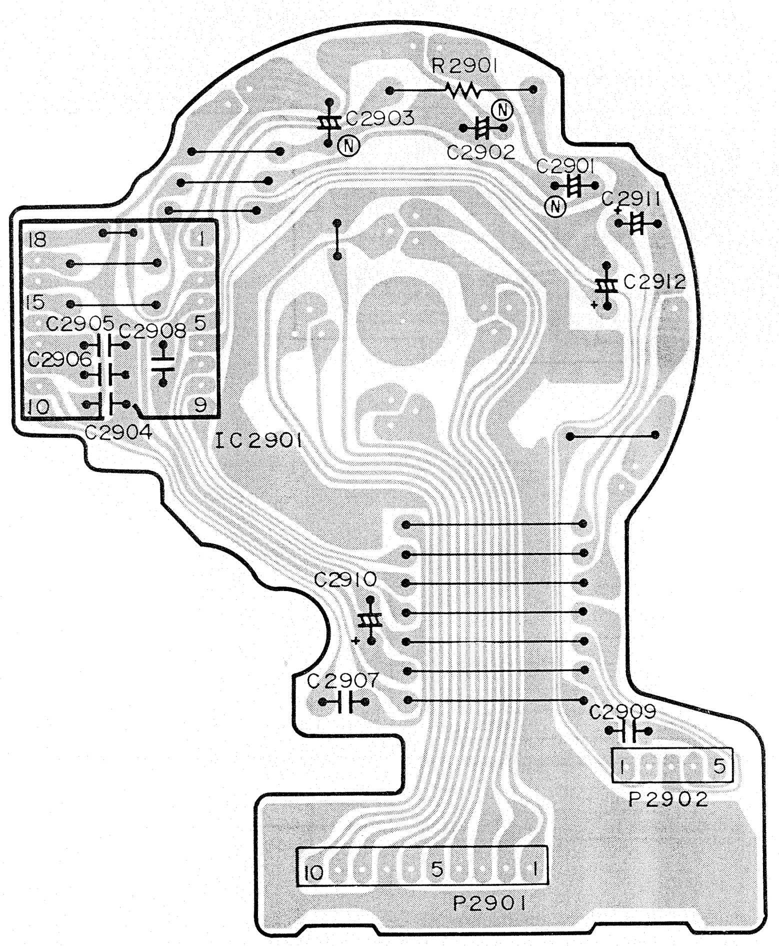


Fig. E11

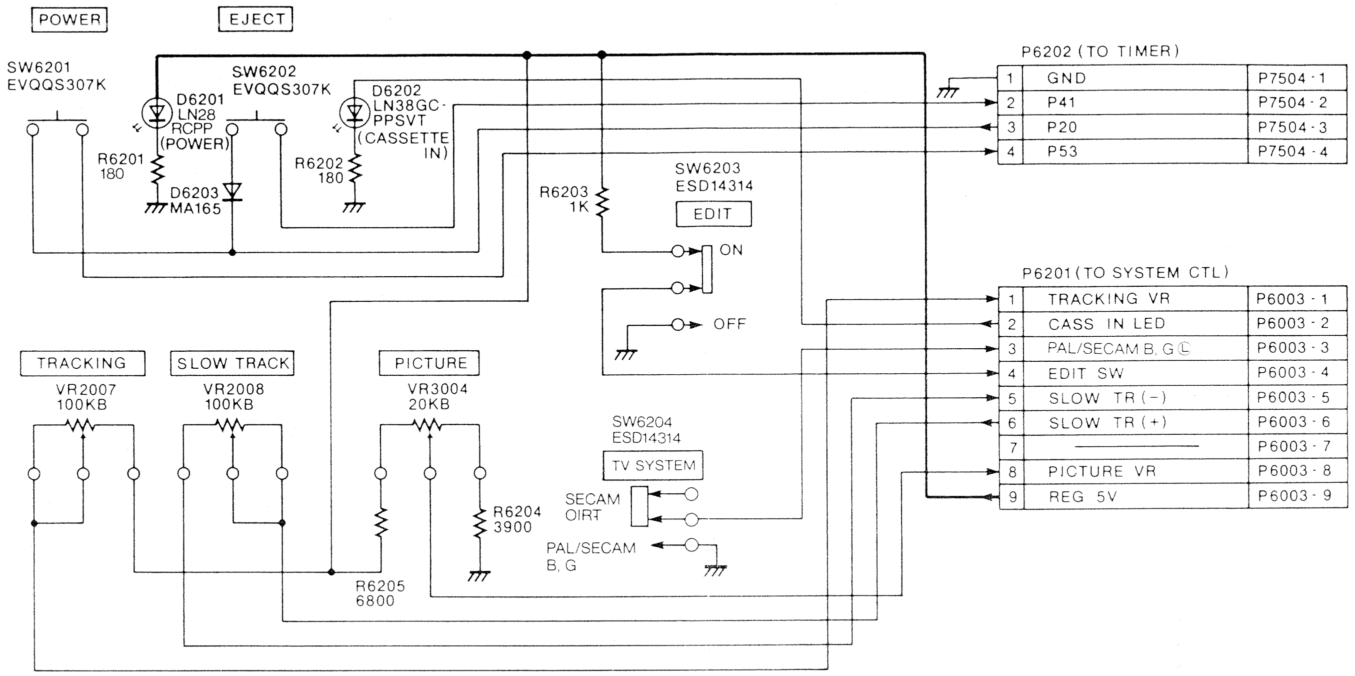
3-1. CYLINDER DRIVE SCHEMATIC DIAGRAM (NV-G21EE/NV-H65EE)


P2902
1 REG 5V
2 P·FG
3 CYL ET
4 GND
5 MOTOR REG 10V
C2910 16V10
C2905 0.1
C2904 0.1
C2906 0.1
C2907 0.082
C2901 35V2.2
18 ATC 0.1
17 M3 10.2
16 VM 10.4
15 PG/FG 1.2
14 P3 3.7
13 P2 3.7
12 P1 3.7
11 VCC 5.1
10 FC 2.7
INTERFACE
PRESET
OSC
CHARGE DISCHARGE CIRCUIT
BEMF DET
START MISS DET
PG/FG DISP
MODE SELECT
1/16
STOP DET
POWER (NPN X3)
MULTIPLICATION
EXTERNAL SYNC
RATURATION DET
THERMAL SHORT DOWN
TORQUE CTL
IIL
STOP
WAVE SHAPER
1 M2 10.2
2 M1 10.2
3 CS 0.1
4 PC 0.6
5 GND
6 ETR 2.6
7 ET 2.5
8 HE⁻ 2.6
9 HE⁺ 2.6
R2901 0.68
C2908 0.047
C2912 6V22
IC2901
AN3814K
C2902 35V2.2
C2903 35V2.2
C2909 0.1
C2911 16V10
(TO CYL MOTOR)
VM
M3
M1
M2
GND
VH
HE⁺
HE⁻

3-2. CYLINDER DRIVE C.B.A. (VEP00K62A) (NV-G21EE/NV-H65EE)

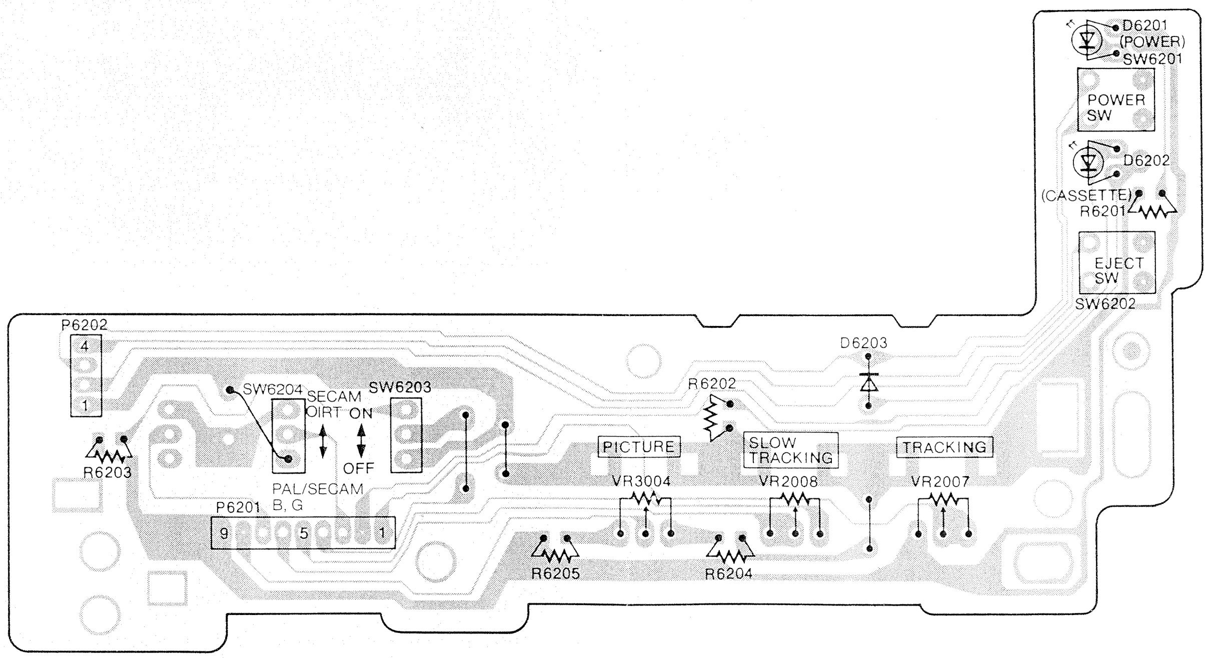

R2901
C2903
C2902
C2901
C2911
C2912
18
1
15
C2905
C2908
5
C2906
10
9
C2904
IC2901
C2910
C2907
C2909
1
5
P2902
10
5
1
P2901

3-3. OPERATION SCHEMATIC DIAGRAM (NV-G21EE)


POWER
EJECT
SW6201
EVQQS307K
SW6202
EVQQS307K
D6201
LN28
RCPP
(POWER)
D6202
LN38GC-
PPSVT
(CASSETTE IN)
R6201
180
R6202
180
D6203
MA165
R6203
1K
SW6203
ESD14314
EDIT
ON
OFF
P6202 (TO TIMER)
1 GND P7504-1
2 P41 P7504-2
3 P20 P7504-3
4 P53 P7504-4
P6201 (TO SYSTEM CTL)
1 TRACKING VR P6003-1
2 CASS IN LED P6003-2
3 PAL/SECAM B,G,L P6003-3
4 EDIT SW P6003-4
5 SLOW TR (−) P6003-5
6 SLOW TR (+) P6003-6
7 P6003-7
8 PICTURE VR P6003-8
9 REG 5V P6003-9
TRACKING
VR2007
100KB
SLOW TRACK
VR2008
100KB
PICTURE
VR3004
20KB
SW6204
ESD14314
TV SYSTEM
SECAM
OIRT
PAL/SECAM
B, G
R6204
3900
R6205
6800

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

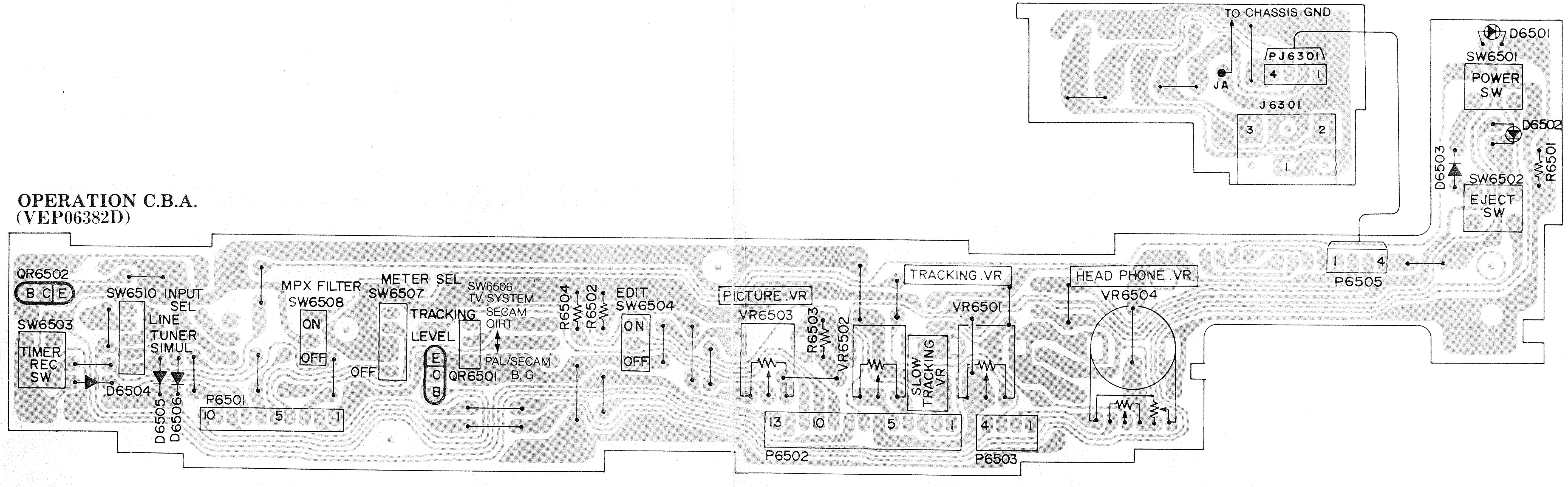
3-4. OPERATION C.B.A. (VEP06409C: NV-G21EE)


D6201
(POWER)
SW6201
POWER SW
D6202
(CASSETTE)
R6201
EJECT SW
SW6202
P6202
4
1
R6203
SW6204
SECAM
OIRT
ON
SW6203
OFF
PAL/SECAM
B, G
P6201
9
5
1
D6203
R6202
PICTURE
VR3004
SLOW TRACKING
VR2008
TRACKING
VR2007
R6205
R6204

3-5. OPERATION C.B.A. (VEP06382D: NV-H65EE)

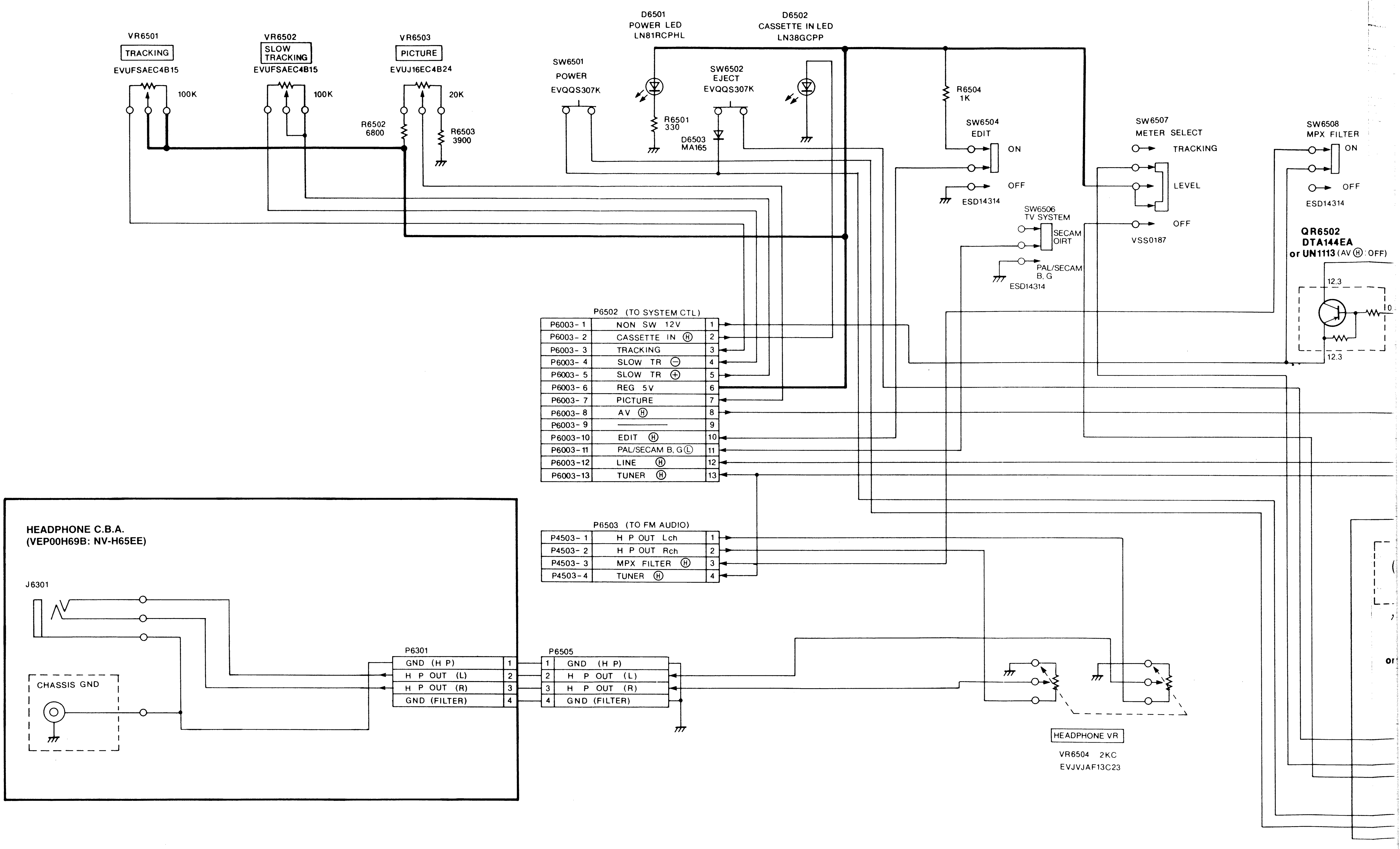
HEADPHONE C.B.A.
(VEP00H69B: NV-H65EE)

OPERATION C.B.A.
(VEP06382D)



QR6502
B C E
SW6510 INPUT SEL
LINE
TUNER
SIMUL
SW6503
TIMER REC SW
D6504
D6505
D6506
P6501
10
5
1
MPX FILTER
SW6508
ON
OFF
METER SEL
SW6507
OFF
TRACKING
LEVEL
SW6506
TV SYSTEM
SECAM OIRT
PAL/SECAM B, G
E
C
B
QR6501
R6504
R6502
EDIT
SW6504
ON
OFF
PICTURE.VR
VR6503
R6503
VR6502
SLOW TRACKING VR
TRACKING.VR
VR6501
HEAD PHONE.VR
VR6504
13
10
5
1
P6502
4
1
P6503
1
4
P6505
TO CHASSIS GND
JA
PJ6301
4
1
J6301
3
2
1
D6501
SW6501
POWER SW
D6502
D6503
R6501
SW6502
EJECT SW

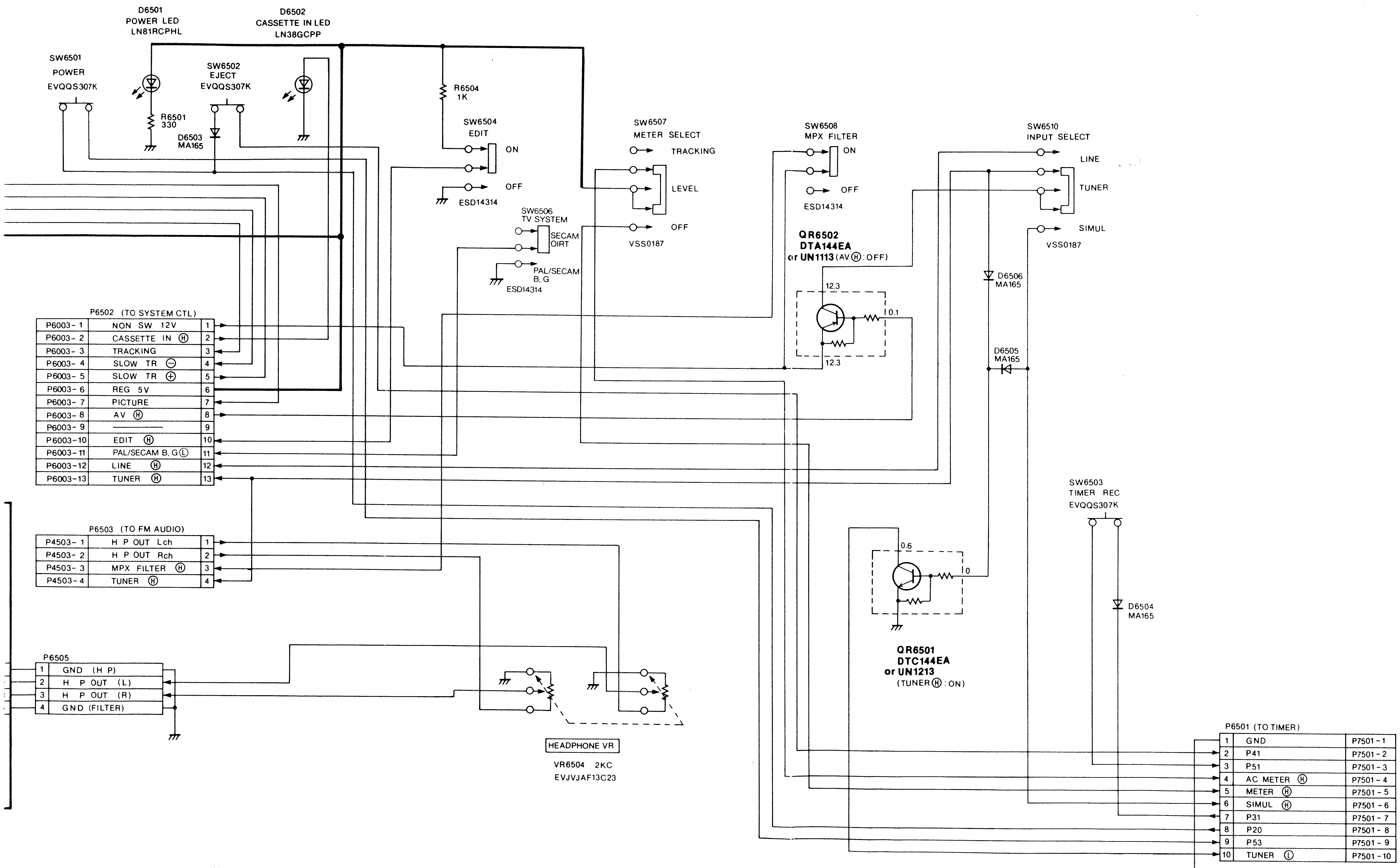
3-6. OPERATION SCHEMATIC DIAGRAM (NV-H65EE)



VR6501
TRACKING
EVUFSAEC4B15
100K
VR6502
SLOW TRACKING
EVUFSAEC4B15
100K
VR6503
PICTURE
EVUJ16EC4B24
20K
R6502
6800
R6503
3900
SW6501
POWER
EVQQS307K
D6501
POWER LED
LN81RCPHL
R6501
330
D6503
MA165
SW6502
EJECT
EVQQS307K
D6502
CASSETTE IN LED
LN38GCPP
R6504
1K
SW6504
EDIT
ON
OFF
ESD14314
SW6506
TV SYSTEM
SECAM OIRT
PAL/SECAM B, G
ESD14314
SW6507
METER SELECT
TRACKING
LEVEL
OFF
VSS0187
SW6508
MPX FILTER
ON
OFF
ESD14314
QR6502
DTA144EA
or UN1113 (AV Ⓗ: OFF)
12.3
12.3
10
P6502 (TO SYSTEM CTL)
P6003-1 NON SW 12V 1
P6003-2 CASSETTE IN Ⓗ 2
P6003-3 TRACKING 3
P6003-4 SLOW TR ⊖ 4
P6003-5 SLOW TR ⊕ 5
P6003-6 REG 5V 6
P6003-7 PICTURE 7
P6003-8 AV Ⓗ 8
P6003-9 ——— 9
P6003-10 EDIT Ⓗ 10
P6003-11 PAL/SECAM B, GⓁ 11
P6003-12 LINE Ⓗ 12
P6003-13 TUNER Ⓗ 13
P6503 (TO FM AUDIO)
P4503-1 H P OUT Lch 1
P4503-2 H P OUT Rch 2
P4503-3 MPX FILTER Ⓗ 3
P4503-4 TUNER Ⓗ 4
HEADPHONE C.B.A.
(VEP00H69B: NV-H65EE)
J6301
CHASSIS GND
P6301
GND (H P) 1
H P OUT (L) 2
H P OUT (R) 3
GND (FILTER) 4
P6505
1 GND (H P)
2 H P OUT (L)
3 H P OUT (R)
4 GND (FILTER)
HEADPHONE VR
VR6504 2KC
EVJVJAF13C23
or

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE

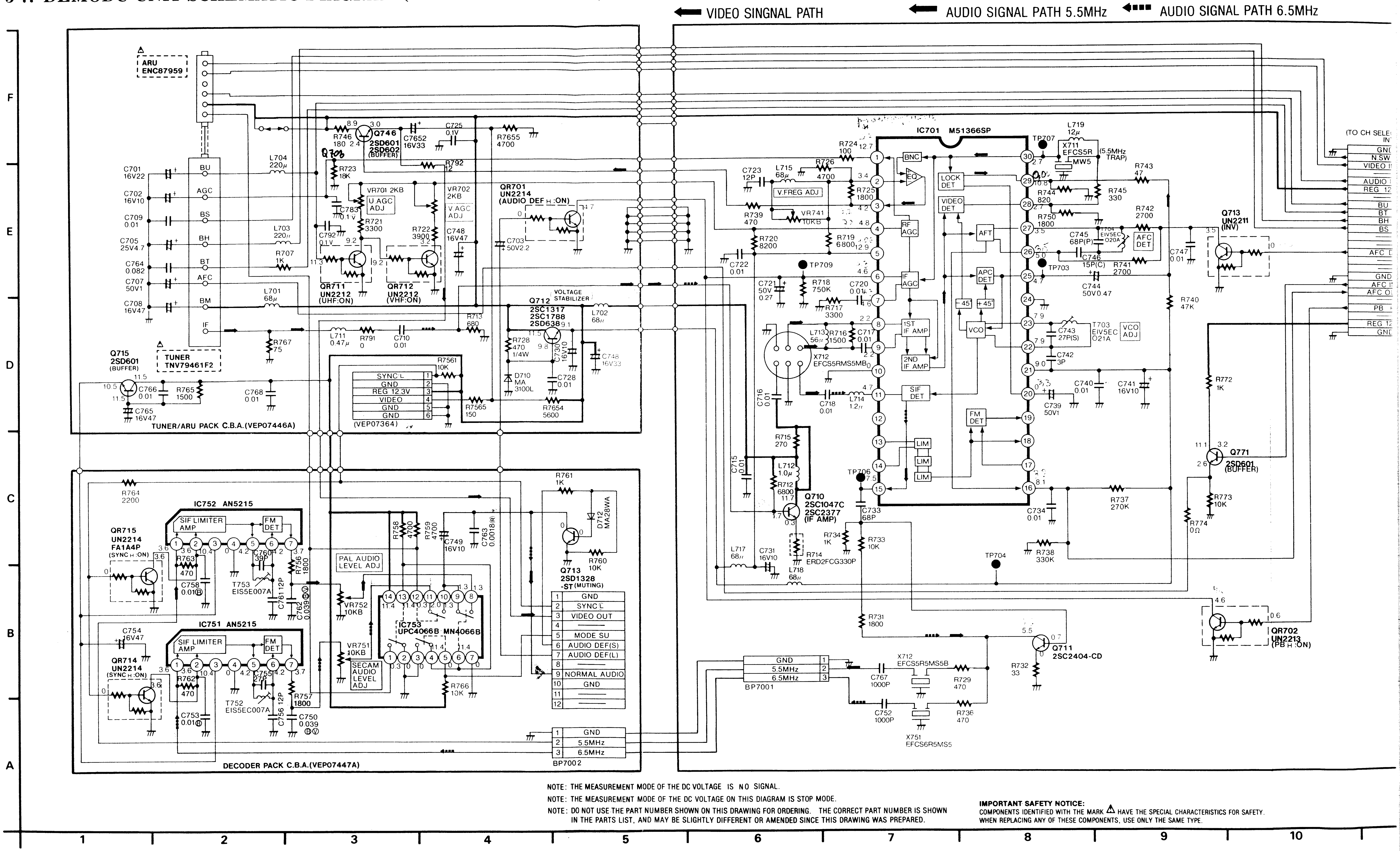
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.


D6501
POWER LED
LN81RCPHL
D6502
CASSETTE IN LED
LN38GCPP
SW6501
POWER
EVQQS307K
SW6502
EJECT
EVQQS307K
R6501
330
D6503
MA165
R6504
1K
SW6504
EDIT
ON
OFF
ESD14314
SW6506
TV SYSTEM
SECAM
OIRT
PAL/SECAM
B, G
ESD14314
SW6507
METER SELECT
TRACKING
LEVEL
OFF
VSS0187
SW6508
MPX FILTER
ON
OFF
ESD14314
QR6502
DTA144EA
or UN1113 (AV Ⓗ : OFF)
12.3
0.1
12.3
SW6510
INPUT SELECT
LINE
TUNER
SIMUL
VSS0187
D6506
MA165
D6505
MA165
P6502 (TO SYSTEM CTL)
P6003- 1 | NON SW 12V | 1
P6003- 2 | CASSETTE IN Ⓗ | 2
P6003- 3 | TRACKING | 3
P6003- 4 | SLOW TR ⊖ | 4
P6003- 5 | SLOW TR ⊕ | 5
P6003- 6 | REG 5V | 6
P6003- 7 | PICTURE | 7
P6003- 8 | AV Ⓗ | 8
P6003- 9 | ——— | 9
P6003-10 | EDIT Ⓗ | 10
P6003-11 | PAL/SECAM B, GⓁ | 11
P6003-12 | LINE Ⓗ | 12
P6003-13 | TUNER Ⓗ | 13
P6503 (TO FM AUDIO)
P4503- 1 | H P OUT Lch | 1
P4503- 2 | H P OUT Rch | 2
P4503- 3 | MPX FILTER Ⓗ | 3
P4503- 4 | TUNER Ⓗ | 4
SW6503
TIMER REC
EVQQS307K
0.6
0
QR6501
DTC144EA
or UN1213
(TUNER Ⓗ : ON)
D6504
MA165
P6505
1 | GND (H P)
2 | H P OUT (L)
3 | H P OUT (R)
4 | GND (FILTER)
HEADPHONE VR
VR6504 2KC
EVJVJAF13C23
P6501 (TO TIMER)
1 | GND | P7501 - 1
2 | P41 | P7501 - 2
3 | P51 | P7501 - 3
4 | AC METER Ⓗ | P7501 - 4
5 | METER Ⓗ | P7501 - 5
6 | SIMUL Ⓗ | P7501 - 6
7 | P31 | P7501 - 7
8 | P20 | P7501 - 8
9 | P53 | P7501 - 9
10 | TUNER Ⓛ | P7501 - 10

OLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

3-7. DEMODU UNIT SCHEMATIC DIAGRAM (NV-G21EE/NV-H65EE)

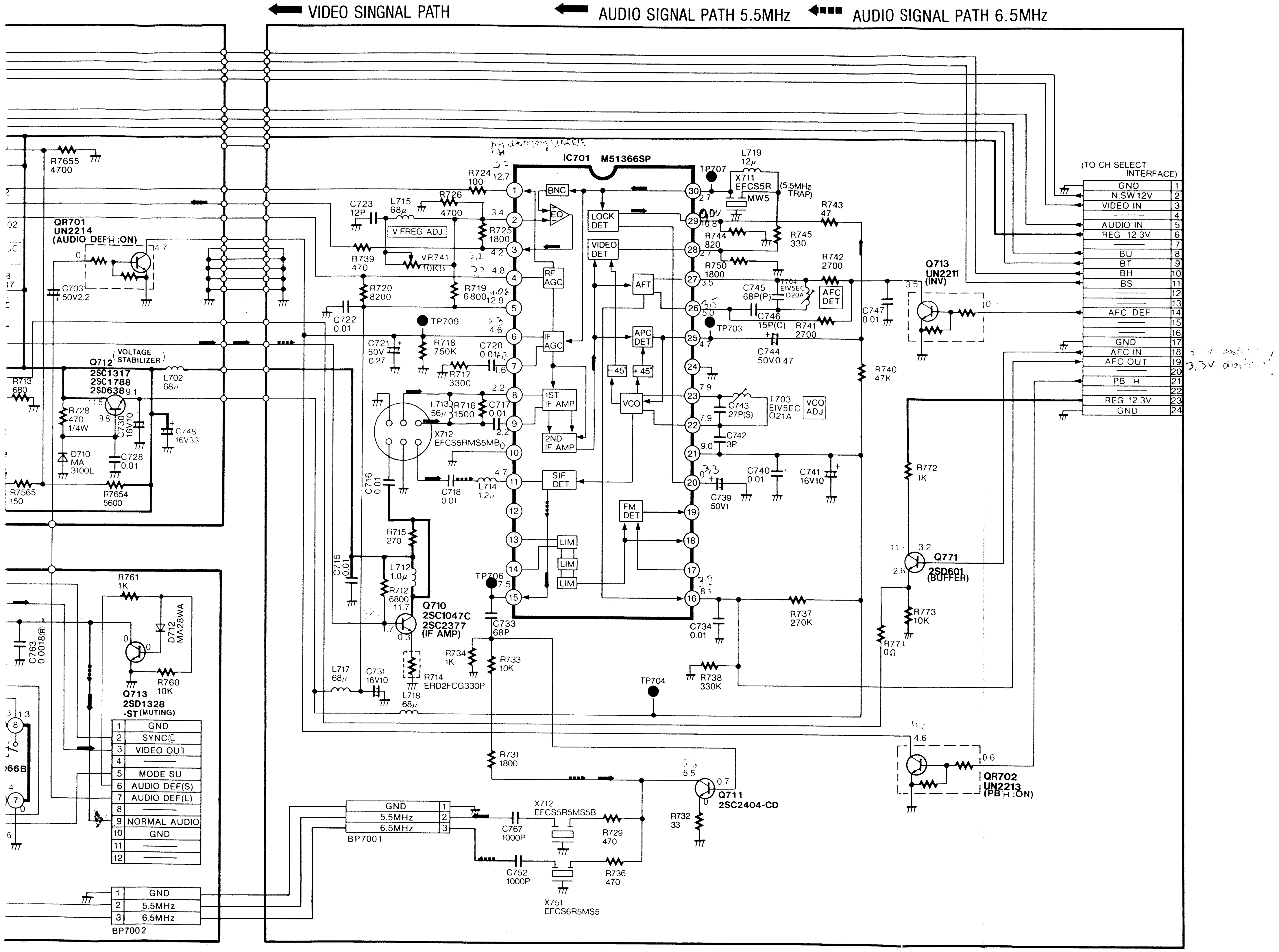

VIDEO SINGNAL PATH
AUDIO SIGNAL PATH 5.5MHz
AUDIO SIGNAL PATH 6.5MHz
ARU ENC87959
TUNER TNV79461F2
TUNER/ARU PACK C.B.A.(VEP07446A)
DECODER PACK C.B.A.(VEP07447A)
Q746 2SD601 2SD602 (BUFFER)
Q715 2SD601 (BUFFER)
QR701 UN2214 (AUDIO DEF H :ON)
QR711 UN2212 (UHF:ON)
QR712 UN2212 (VHF:ON)
Q712 VOLTAGE STABILIZER 2SC1317 2SC1788 2SD638
VR701 2KB U AGC ADJ
VR702 2KB V.AGC ADJ
(VEP07364)
SYNC L
GND
REG 12.3V
VIDEO
GND
GND
IC701 M51366SP
BNC
EQ
LOCK DET
VIDEO DET
RF AGC
IF AGC
AFT
APC DET
VCO
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
AFC DET
V.FREG ADJ
VCO ADJ
X711 EFCS5R MW5 (5.5MHz TRAP)
X712 EFCS5RMS5MB
T703 EIV5EC O21A
T704 EIV5EC O20A
Q710 2SC1047C 2SC2377 (IF AMP)
Q711 2SC2404-CD
Q713 UN2211 (INV)
Q771 2SD601 (BUFFER)
QR702 UN2213 (PB H :ON)
TP703
TP704
TP706
TP707
TP709
IC752 AN5215
IC751 AN5215
SIF LIMITER AMP
FM DET
QR715 UN2214 FA1A4P (SYNC H :ON)
QR714 UN2214 (SYNC H :ON)
T753 EIS5E007A
T752 EIS5EC007A
PAL AUDIO LEVEL ADJ
SECAM AUDIO LEVEL ADJ
VR752 10KB
VR751 10KB
IC753 UPC4066B MN4066B
Q713 2SD1328 -ST (MUTING)
D712 MA28WA
D710 MA 3100L
1 GND
2 SYNC L
3 VIDEO OUT
4
5 MODE SU
6 AUDIO DEF(S)
7 AUDIO DEF(L)
8
9 NORMAL AUDIO
10 GND
11
12
BP7001
GND 1
5.5MHz 2
6.5MHz 3
BP7002
1 GND
2 5.5MHz
3 6.5MHz
X751 EFCS6R5MS5
(TO CH SELE
GND
N.SW
VIDEO
AUDIO
REG 12
BU
BT
BH
BS
AFC
GND
AFC
AFC
PB
REG 12
GND
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IS NO SIGNAL.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.


VIDEO SINGNAL PATH
AUDIO SIGNAL PATH 5.5MHz
AUDIO SIGNAL PATH 6.5MHz
IC701 M51366SP
BNC
EQ
LOCK DET
VIDEO DET
RF AGC
IF AGC
AFT
APC DET
-45°
+45°
VCO
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
AFC DET
VCO ADJ
V.FREG ADJ
X711 EFCS5R MW5 (5.5MHz TRAP)
X712 EFCS5RMS5MB
T703 EIV5EC O21A
QR701 UN2214 (AUDIO DEF H:ON)
Q712 (VOLTAGE STABILIZER) 2SC1317 2SC1788 2SD638
Q710 2SC1047C 2SC2377 (IF AMP)
Q711 2SC2404-CD
Q713 UN2211 (INV)
Q713 2SD1328 -ST (MUTING)
Q771 2SD601 (BUFFER)
QR702 UN2213 (PB H :ON)
(TO CH SELECT INTERFACE)
1 GND
2 N.SW12V
3 VIDEO IN
5 AUDIO IN
6 REG 12.3V
8 BU
9 BT
10 BH
11 BS
14 AFC DEF
17 GND
18 AFC IN
19 AFC OUT
21 PB H
23 REG 12.3V
24 GND
1 GND
2 SYNC
3 VIDEO OUT
5 MODE SU
6 AUDIO DEF(S)
7 AUDIO DEF(L)
9 NORMAL AUDIO
10 GND
BP7001
1 GND
2 5.5MHz
3 6.5MHz
BP7002
1 GND
2 5.5MHz
3 6.5MHz
X712 EFCS5R5MS5B
X751 EFCS6R5MS5
TP703
TP704
TP706
TP707
TP709
3,3V
4
5
6
7
8
9
10
11

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IS NO SIGNAL.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

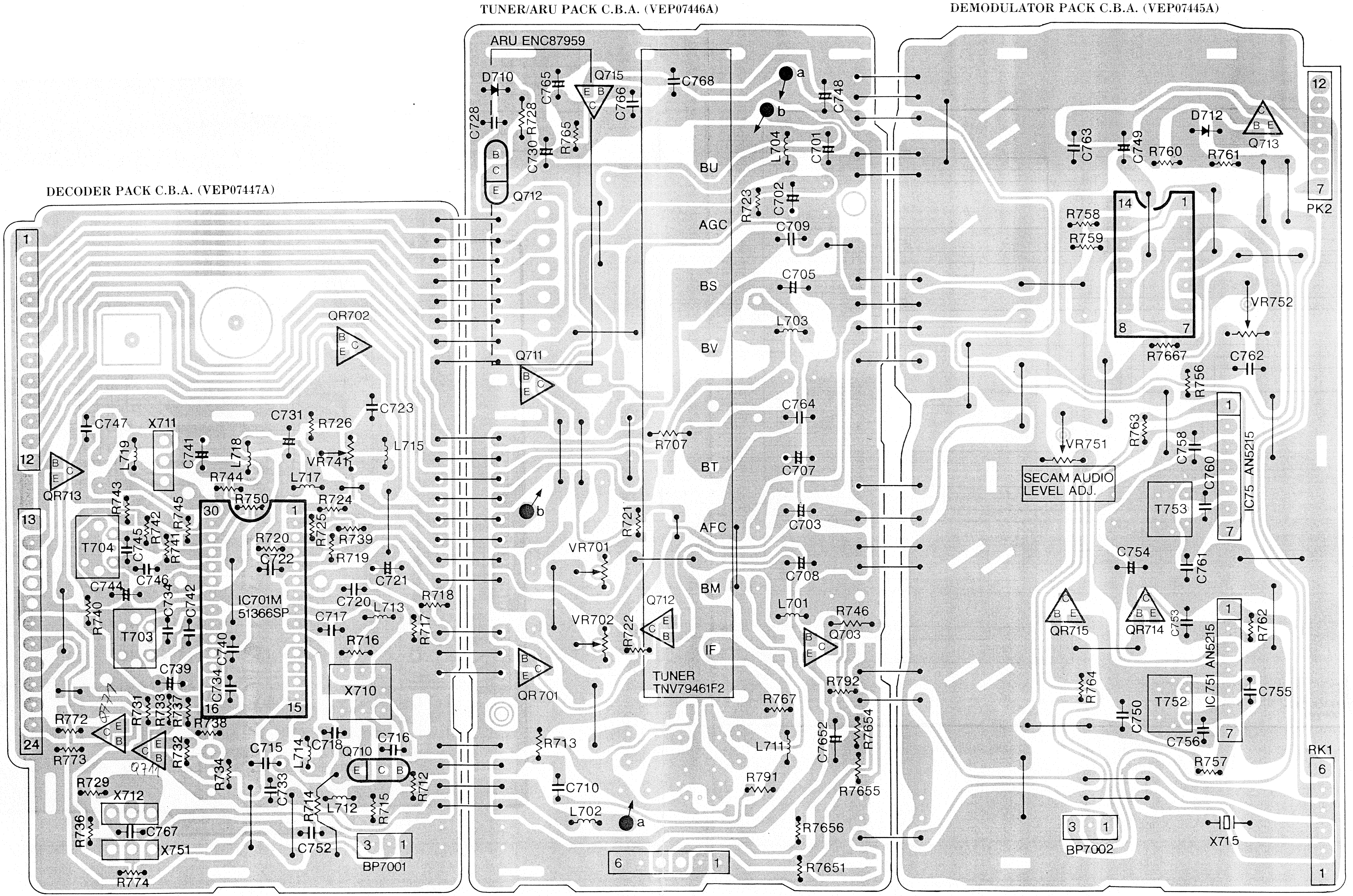
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

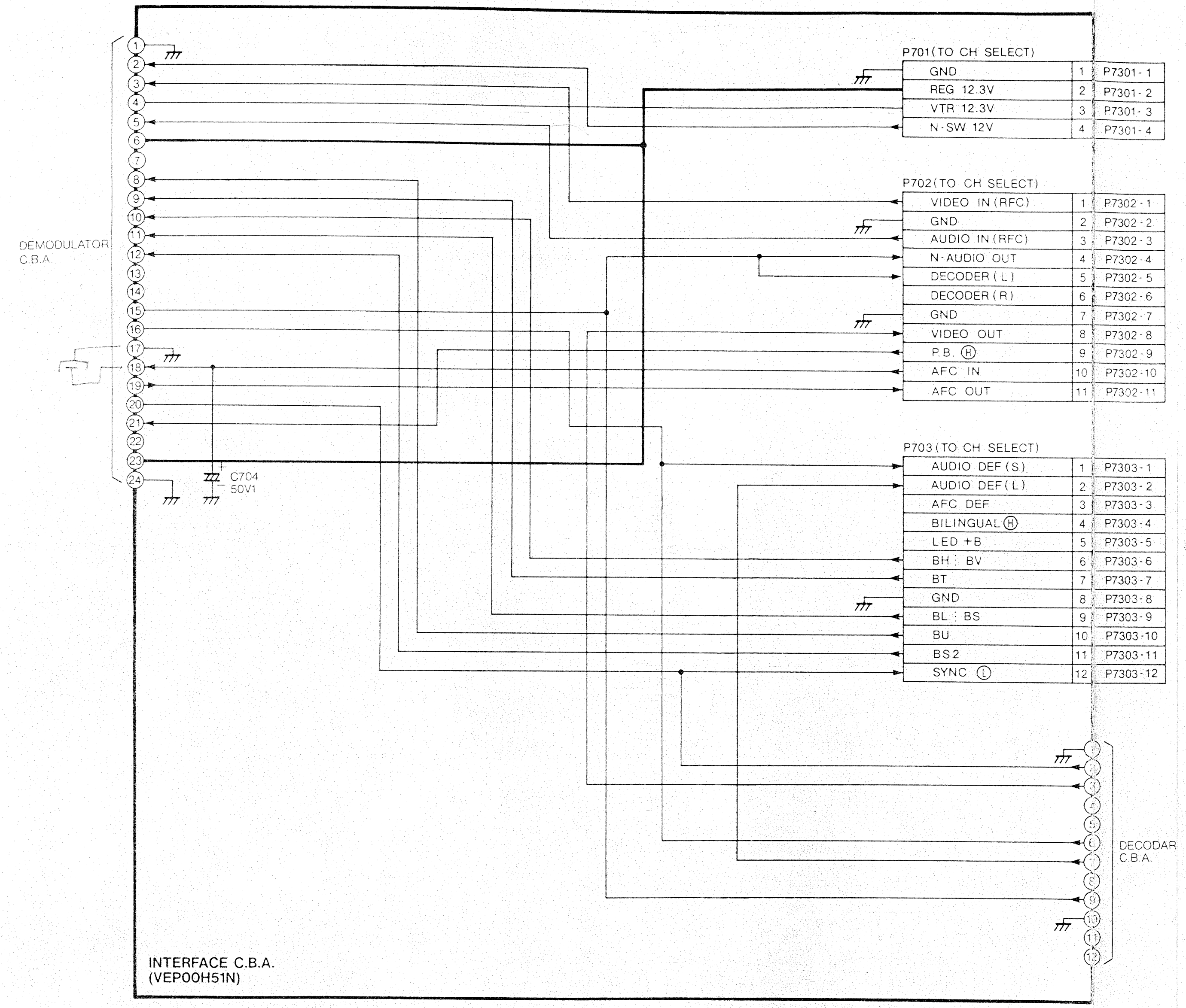
INTERFACE (DEMODU UNIT) SCHEMATIC	
Transistor	
Q710	C-6
Q711	B-8
Q712	D-5
Q713	C-5
Q713	E-10
Q715	D-1
Q746	F-3
Q771	C-9
Transistor & Resistor	
QR701	E-5
QR702	B-9
QR711	E-3
QR712	E-4
QR714	A-1
QR715	B-1
Integrated Circuit	
IC701	F-7
IC751	B-2
IC752	C-2
IC753	B-3
Test Point	
TP703	E-8
TP704	C-8
TP706	C-7
TP707	F-8
TP709	E-6
Adjustment	
VR701	E-3
VR702	E-4
VR741	E-6
VR751	B-3
VR752	B-3
T703	D-9
T704	E-9
T752	A-2
T753	B-2
Connector	
BP7001	B-6
VJR0190	D-11

ADDRESS INFORMATION

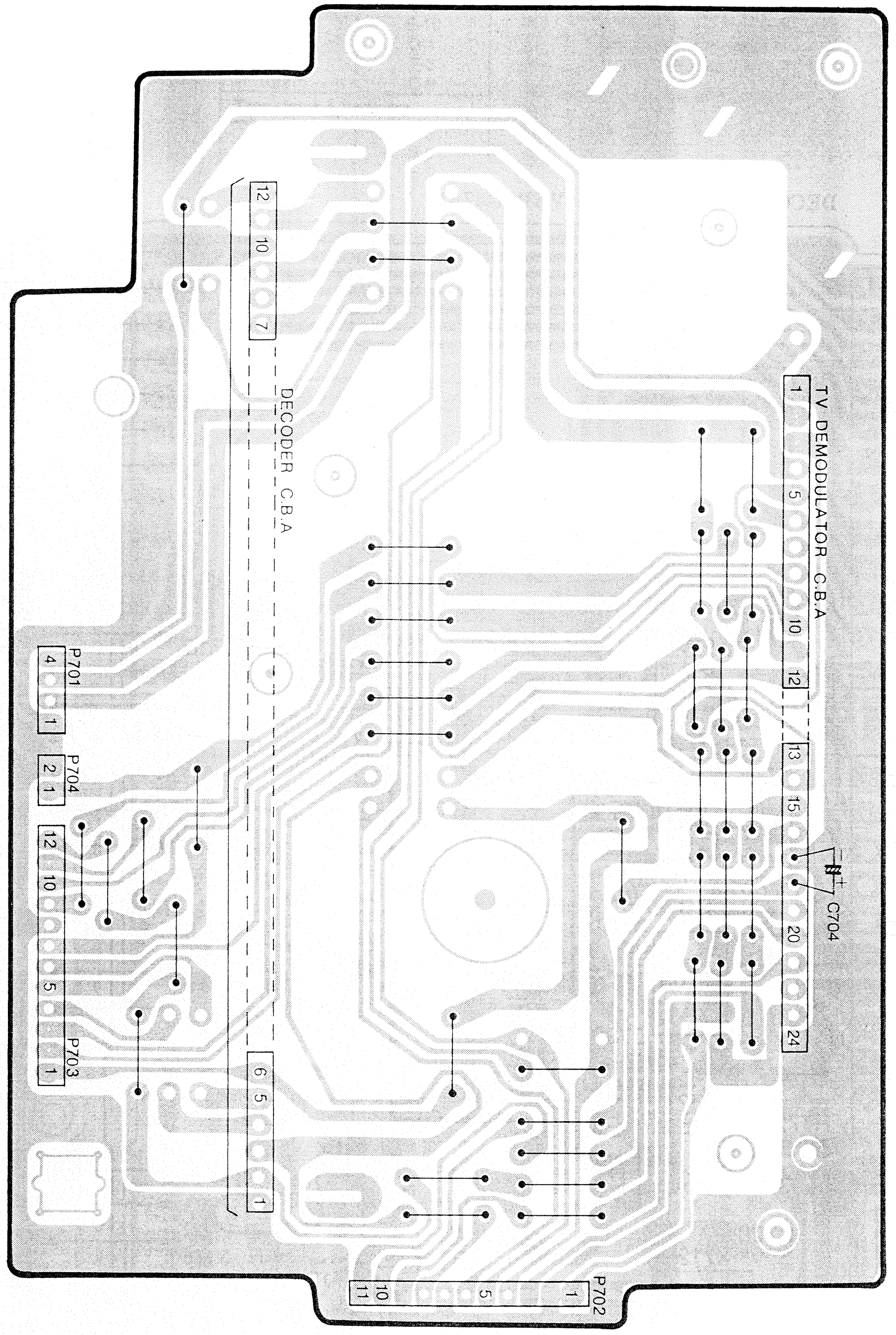
3-8. DEMODU UNIT C.B.A. (NV-G21EE/NV-H65EE)


TUNER/ARU PACK C.B.A. (VEP07446A)
DEMODULATOR PACK C.B.A. (VEP07445A)
DECODER PACK C.B.A. (VEP07447A)
ARU ENC87959
D710
C765
Q715
C768
a
b
C748
C728
R728
C766
R765
C730
Q712
L704
C701
BU
R723
C702
AGC
C709
C705
BS
L703
BV
Q711
C764
R707
BT
C707
R721
AFC
C703
VR701
C708
BM
Q712
L701
R746
VR702
R722
IF
Q703
TUNER
TNV79461F2
R792
R767
R7654
C7652
L711
QR701
R713
R791
R7655
C710
L702
R7656
R7651
6
1
12
7
PK2
D712
Q713
C763
C749
R760
R761
R758
R759
14
1
8
7
VR752
R7667
C762
R756
VR751
SECAM AUDIO LEVEL ADJ.
R763
C758
C760
IC75 AN5215
T753
C754
C761
QR715
QR714
C753
R762
IC751 AN5215
R764
C750
T752
C755
C756
R757
RK1
6
1
3
1
BP7002
X715
QR702
C747
X711
C731
R726
C723
L719
C741
L718
VR741
L715
12
QR713
R744
L717
R743
R750
R724
30
1
R742
R745
R720
R725
R739
T704
C745
R741
C722
R719
C746
C721
C744
C734
C742
IC701M
51366SP
C720
L713
R718
R740
T703
C717
R717
C740
R716
C739
C734
X710
R772
R731
R733
R737
R738
16
15
24
13
R773
R732
C715
L714
C718
Q710
C716
R734
R712
R729
X712
C733
R714
L712
R715
R736
C767
X751
C752
3
1
BP7001
R774
Q713
Q711

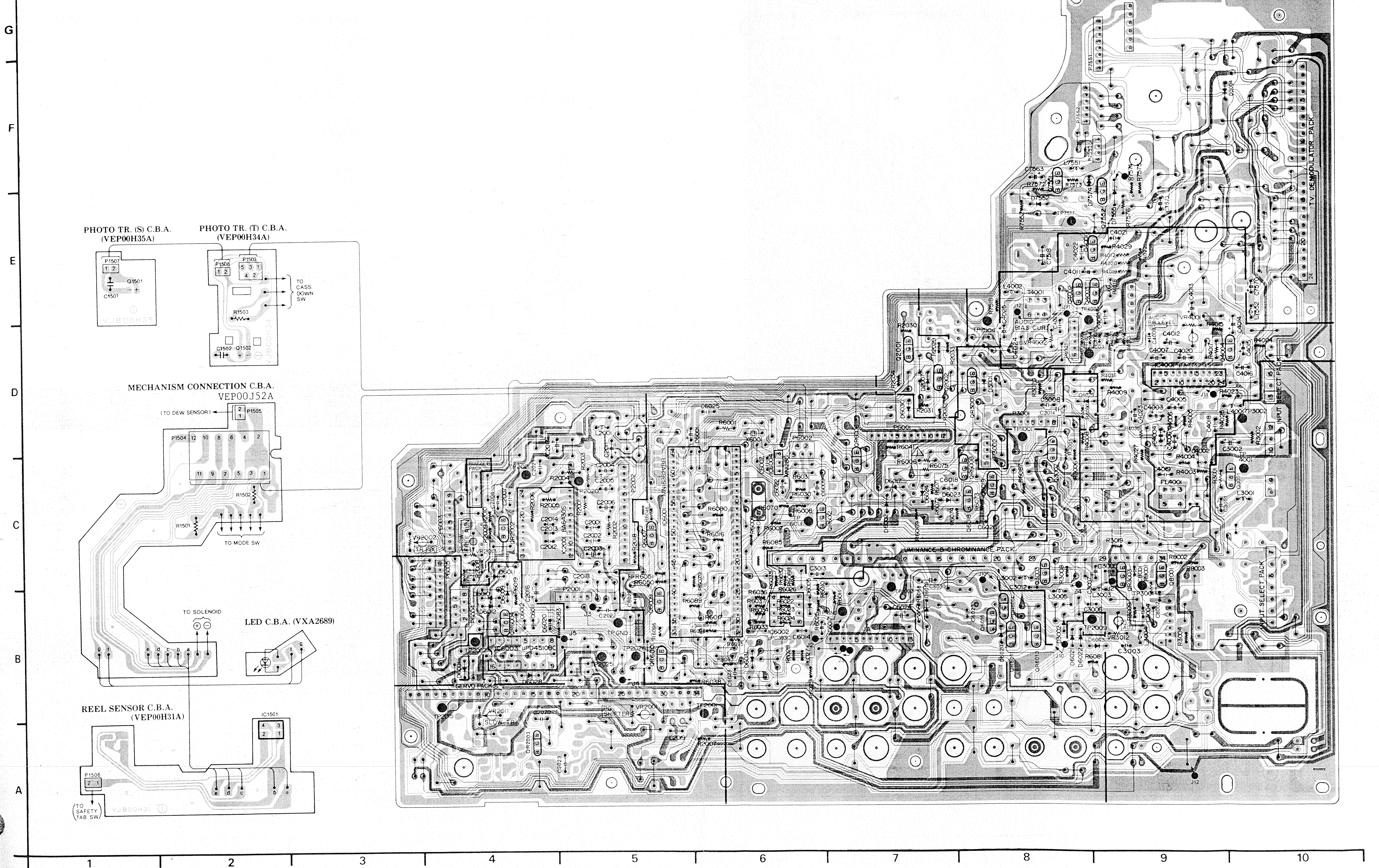
3-9. INTERFACE SCHEMATIC DIAGRAM (NV-H65EE)

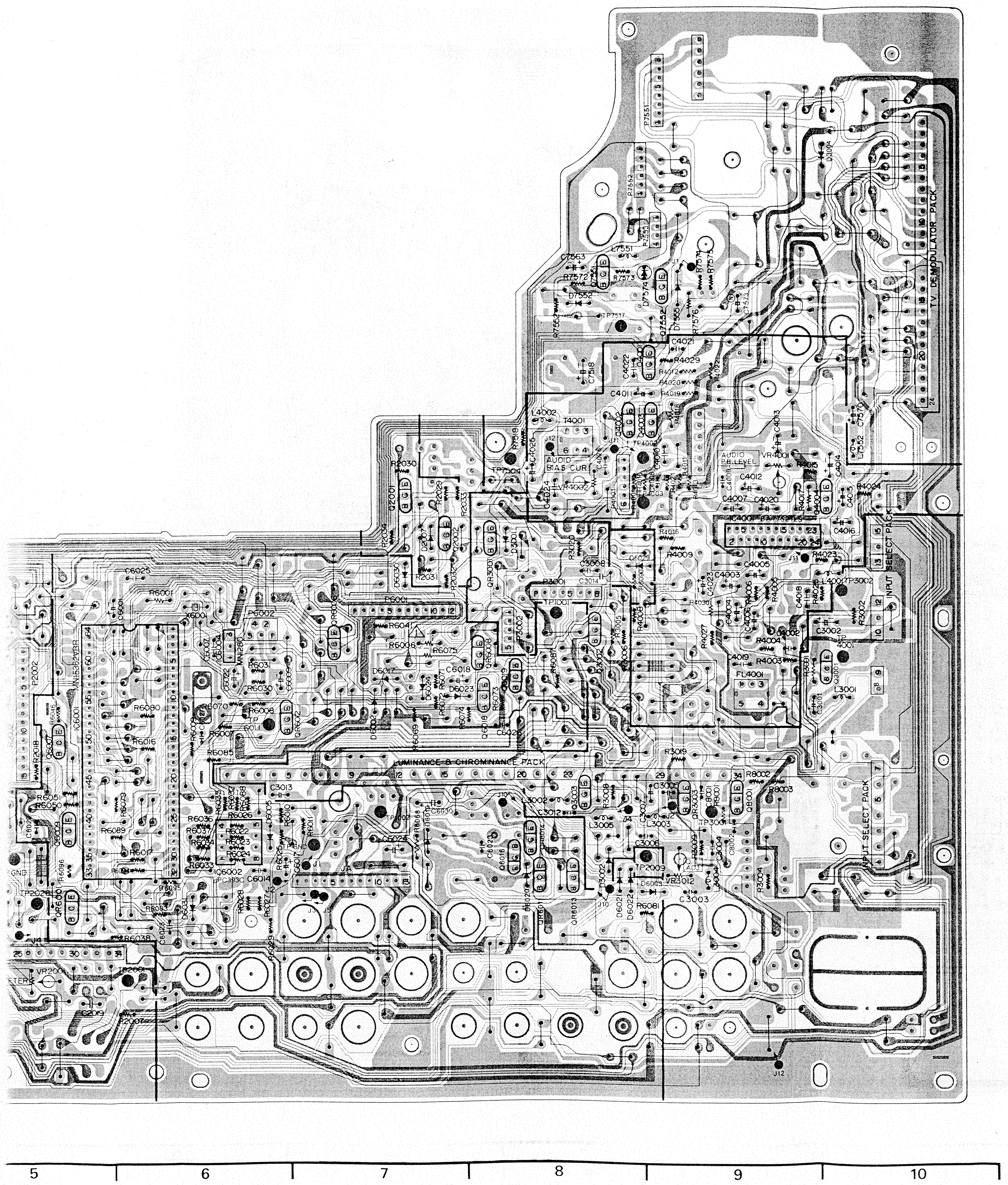

DEMODULATOR C.B.A.
P701(TO CH SELECT)
GND
REG 12.3V
VTR 12.3V
N-SW 12V
P7301-1
P7301-2
P7301-3
P7301-4
P702(TO CH SELECT)
VIDEO IN(RFC)
GND
AUDIO IN(RFC)
N-AUDIO OUT
DECODER(L)
DECODER(R)
GND
VIDEO OUT
P.B. Ⓗ
AFC IN
AFC OUT
P7302-1
P7302-2
P7302-3
P7302-4
P7302-5
P7302-6
P7302-7
P7302-8
P7302-9
P7302-10
P7302-11
P703(TO CH SELECT)
AUDIO DEF(S)
AUDIO DEF(L)
AFC DEF
BILINGUAL Ⓗ
LED +B
BH : BV
BT
GND
BL : BS
BU
BS2
SYNC Ⓛ
P7303-1
P7303-2
P7303-3
P7303-4
P7303-5
P7303-6
P7303-7
P7303-8
P7303-9
P7303-10
P7303-11
P7303-12
C704
50V1
DECODAR C.B.A.
INTERFACE C.B.A.
(VEPOOH51N)

3-10. INTERFACE C.B.A. (NV-H65EE)


DECODER C.B.A
TV DEMODULATOR C.B.A
P701
P704
P703
P702
C704

3-11. MAIN C.B.A. (VEP03440F: NV-G21EE)


G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
PHOTO TR. (S) C.B.A. (VEP00H35A)
PHOTO TR. (T) C.B.A. (VEP00H34A)
TO CASS. DOWN SW
MECHANISM CONNECTION C.B.A. VEP00J52A
(TO DEW SENSOR)
TO MODE SW
TO SOLENOID
LED C.B.A. (VXA2689)
REEL SENSOR C.B.A. (VEP00H31A)
TO SAFETY TAB SW
T.V. DEMODULATOR PACK
AUDIO BIAS CUR.
AUDIO P.B. LEVEL
INPUT SELECT PACK
LUMINANCE & CHROMINANCE PACK
SERVO PACK
BUZZER PACK
PG SHIFTER
SLOW TR.
IC6003 uPD4510BC
IC6001
IC4001
FL4001
T4001
P1501
P1503
P1504
P1505
P1506
P1507
IC1501
Q1501
Q1502
C1501
C1502
R1501
R1502
R1503
J12



MAIN C.B.A. ADDRESS INFORMATIONS

SERVO SECTION	
Transistor	
Q2001	D-7
Q2002	D-7
Transistor & Resistor	
QR2002	C-4
Integrated Circuit	
IC2001	C-4
Test Point	
TP2001	A-6
TP2002	B-4
TP2009	B-8
TP2015	B-4
TP2020	C-5
TP2021	C-4
TP2025	B-5
TP2026	B-5
Adjustment	
VR2001	B-5
VR2002	C-3
VR2011	B-4
VR2013	C-4
Connector	
P2001	B-5
P2002	C-5

ADDRESS INFORMATION

LUMINANCE & CHROMINANCE SECTION	
Transistor	
Q3001	C-10
Q3002	C-8
Q3003	C-8
Q8001	C-9
Transistor & Resistor	
QR3001	D-8
QR3003	C-9
Test Point	
TP3001	C-9
TP3002	D-10
Adjustment	
VR3012	B-9
Connector	
P3001	D-8
P3002	C-8
P3003	B-9

ADDRESS INFORMATION

AUDIO SECTION	
Transistor	
Q4001	E-9
Q4002	E-8
Q4003	E-9
Q4004	D-10
Integrated Circuit	
IC4001	D-9
Test Point	
TP4001	C-10
TP4002	D-9
TP4003	D-9
Adjustment	
VR4001	D-9
VR4002	D-8
Connector	
P4001	E-8

ADDRESS INFORMATION

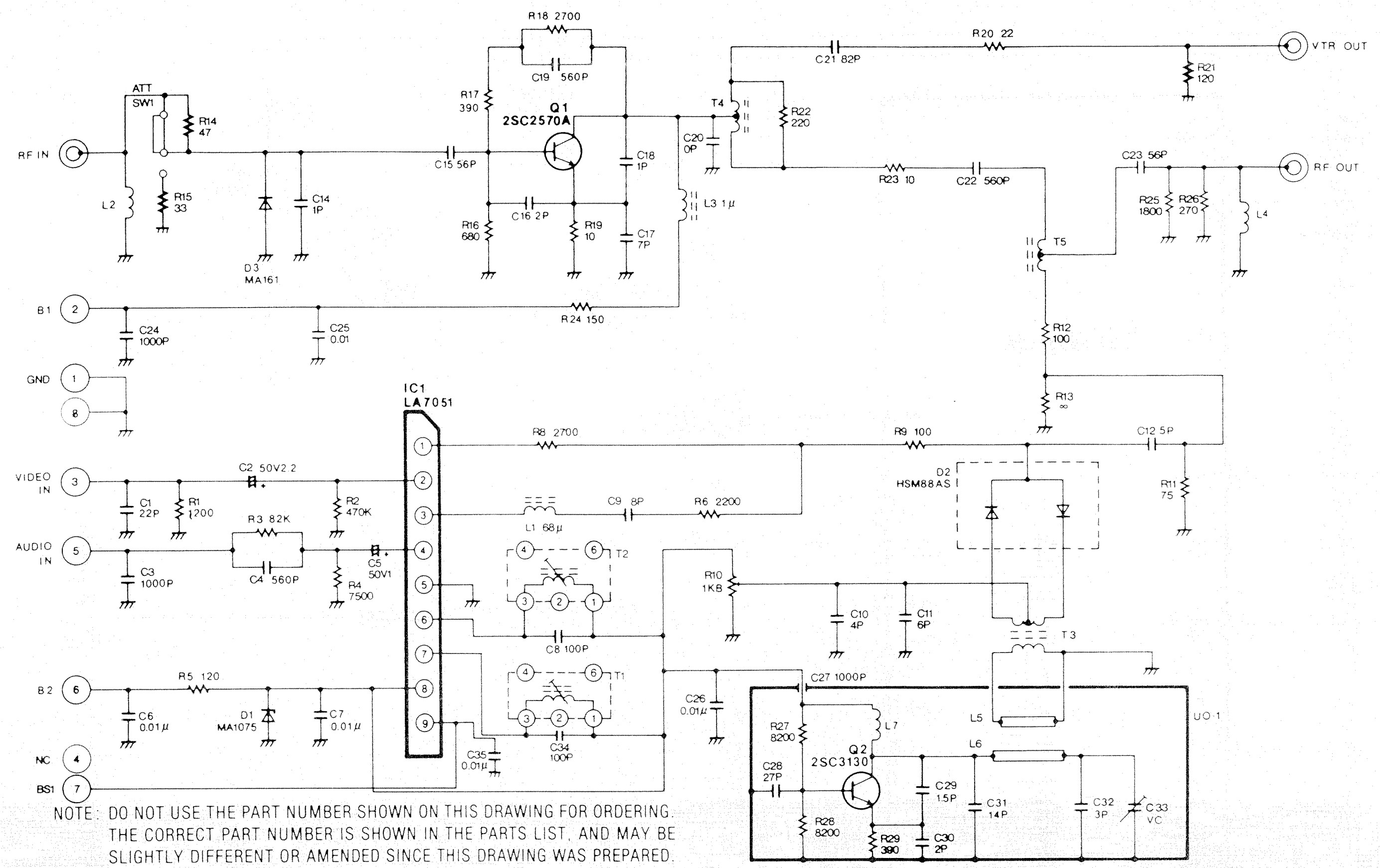
SYSTEM CONTROL SECTION	
Transistor	
Q6007	C-5
Q6009	B-5
Q6016	B-8
Q6018	C-8
Q6019	C-8
Transistor & Resistor	
QR6001	B-5
QR6004	B-4
QR6006	D-7
QR6008	C-8
QR6011	B-8
QR6012	C-6
QR6013	B-8
QR6014	B-8
Integrated Circuit	
IC6001	C-6
IC6002	B-6
IC6003	B-4
IC6004	C-6
Test Point	
TP1001	D-8
TP1002	C-7
TP6011	C-6
TP GND	B-5
TP GND	B-7
Connector	
P6001	D-7
P6002	D-6
P6003	C-4
P6004	B-4
P6005	B-4
JA	B-7

ADDRESS INFORMATION

CH SELECT INTERFACE SECTION	
Transistor	
Q7551	F-8
Q7552	E-9
Integrated Circuit	
IC7551	F-9
Test Point	
TP7504	D-8
TP7517	E-8
Connector	
P7551	F-9
P7552	F-9
P7553	F-9

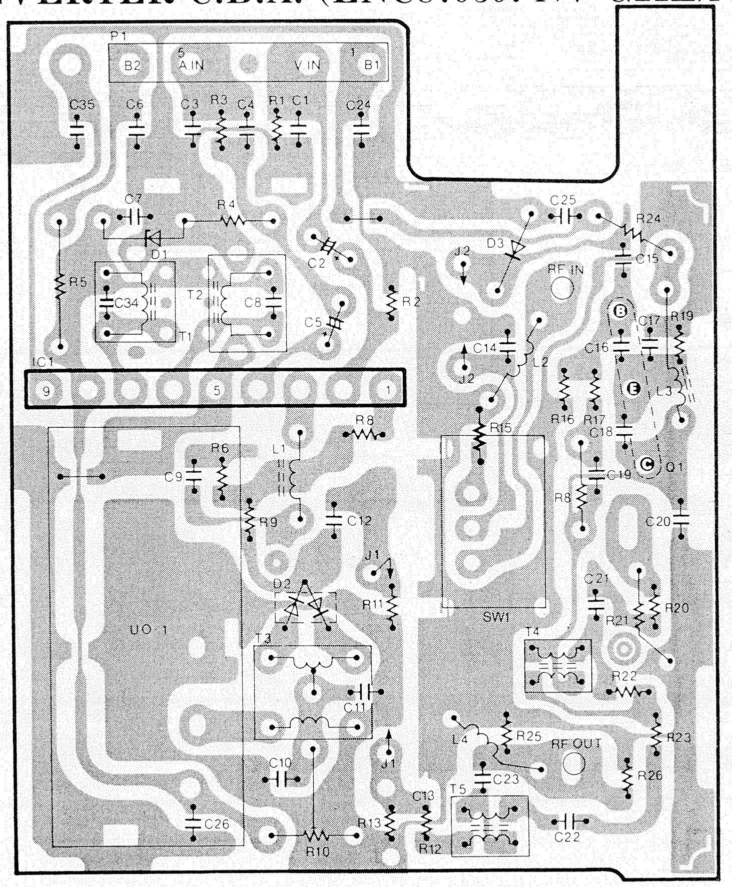
ADDRESS INFORMATION

3-13. RF CONVERTER SCHEMATIC DIAGRAM (NV-G21EE/NV-H65EE)

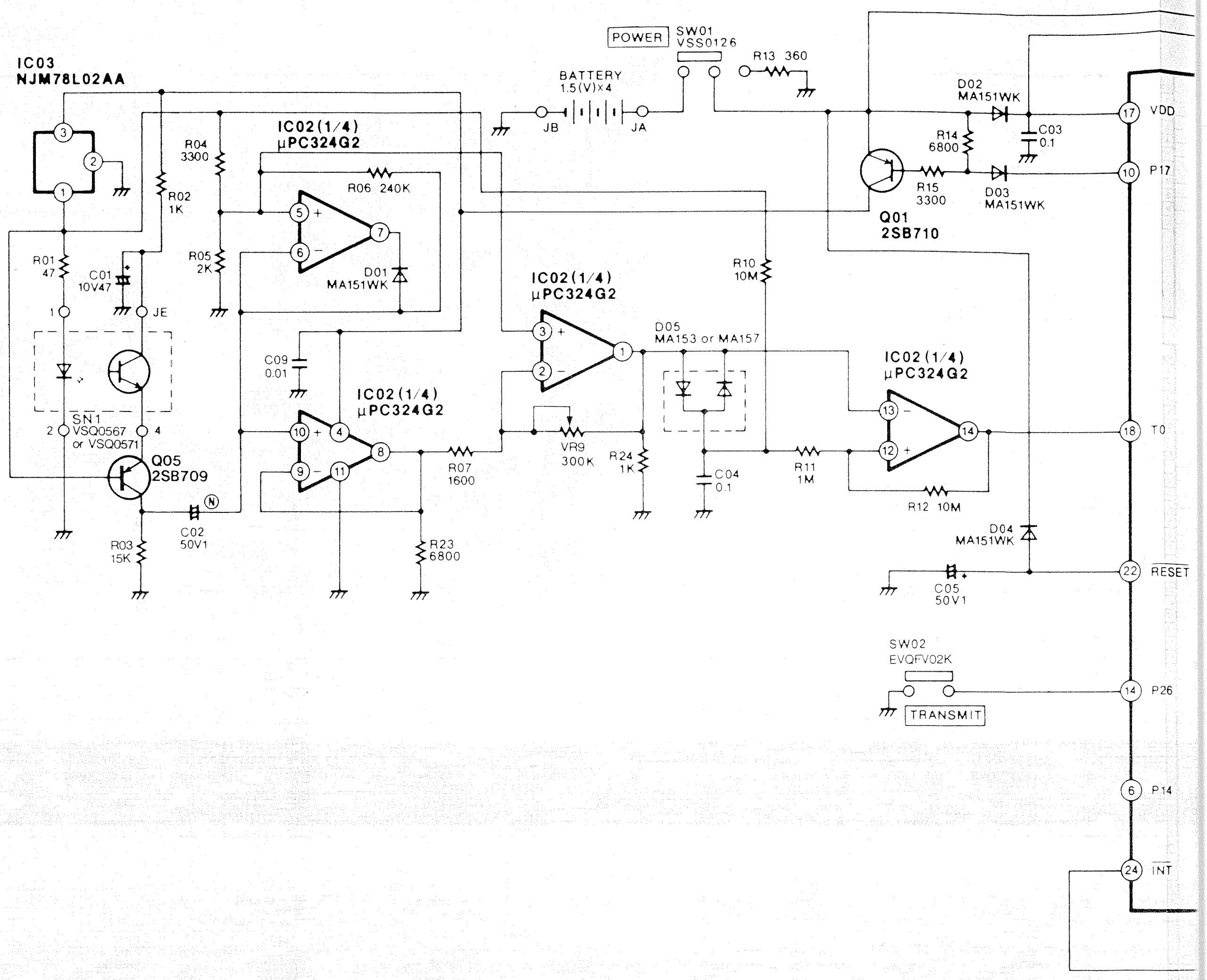

RF IN
ATT SW1
R14 47
R15 33
L2
D3 MA161
C14 1P
C15 56P
Q1 2SC2570A
R17 390
R18 2700
C19 560P
R16 680
C16 2P
R19 10
C18 1P
C17 7P
C20 0P
T4
R22 220
L3 1μ
C21 82P
R20 22
R21 120
VTR OUT
R23 10
C22 560P
C23 56P
R25 1800
R26 270
L4
RF OUT
T5
B1
C24 1000P
C25 0.01
R24 150
GND
R12 100
R13 ∞
IC1 LA7051
VIDEO IN
C1 22P
R1 1200
C2 50V2.2
R2 470K
AUDIO IN
C3 1000P
R3 82K
C4 560P
C5 50V1
R4 7500
R8 2700
R9 100
C12 5P
R11 75
D2 HSM88AS
L1 68μ
C9 8P
R6 2200
T2
C8 100P
R10 1K8
C10 4P
C11 6P
T3
T1
C34 100P
B2
C6 0.01μ
R5 120
D1 MA1075
C7 0.01μ
C26 0.01μ
C27 1000P
C35 0.01μ
NC
BS1
R27 8200
L7
Q2 2SC3130
C28 27P
R28 8200
R29 390
C29 15P
C30 2P
L5
L6
C31 14P
C32 3P
C33 VC
UO-1

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

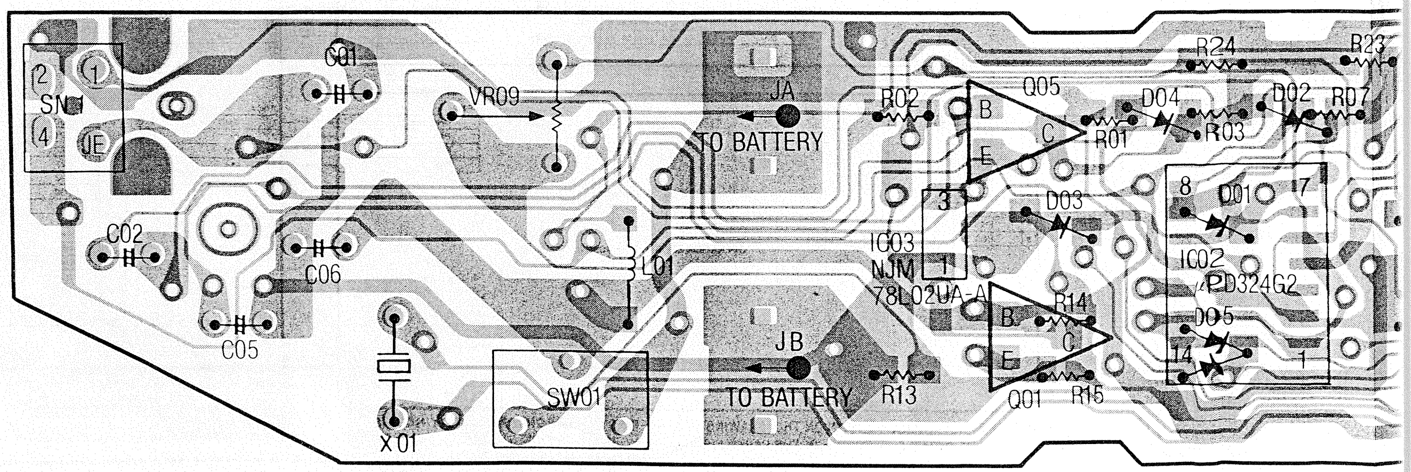
3-14. RF CONVERTER C.B.A. (ENC87959: NV-G21E/NV-H65EE)


P1
B2
A IN
V IN
B1
C35
C6
C3 R3 C4
R1 C1
C24
C7
D1
R4
C25
R24
D3
J2
RF IN
C15
R5
C34
T2
C8
T1
C2
C5
R2
C14
L2
C16
C17
R19
IC1
R8
R15
R16 R17
C18
L3
C19
Q1
R6
C9
L1
R9
C12
J1
R11
C21
C20
D2
SW1
T4
R21
R20
UO-1
T3
C11
R22
L4
R25
RF OUT
R23
C10
C23
T5
R26
C13
C26
R13
R10
R12
C22

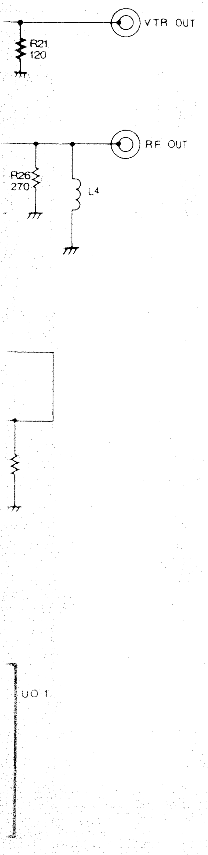
3-15. DIGITAL SCANNER SCHEMATIC DIAGRAM (NV-G21EE)


IC03 NJM78L02AA
POWER
SW01 VSS0126
R13 360
BATTERY 1.5(V)×4
JB
JA
D02 MA151WK
R14 6800
C03 0.1
VDD
P17
R15 3300
D03 MA151WK
Q01 2SB710
IC02(1/4) μPC324G2
R04 3300
R02 1K
R05 2K
R06 240K
D01 MA151WK
R01 47
C01 10V47
JE
SN1 VSQ0567 or VSQ0571
Q05 2SB709
C02 50V1
R03 15K
C09 0.01
R10 10M
D05 MA153 or MA157
R07 1600
VR9 300K
R24 1K
C04 0.1
R11 1M
R12 10M
T0
R23 6800
D04 MA151WK
C05 50V1
RESET
SW02 EVQFV02K
TRANSMIT
P26
P14
INT

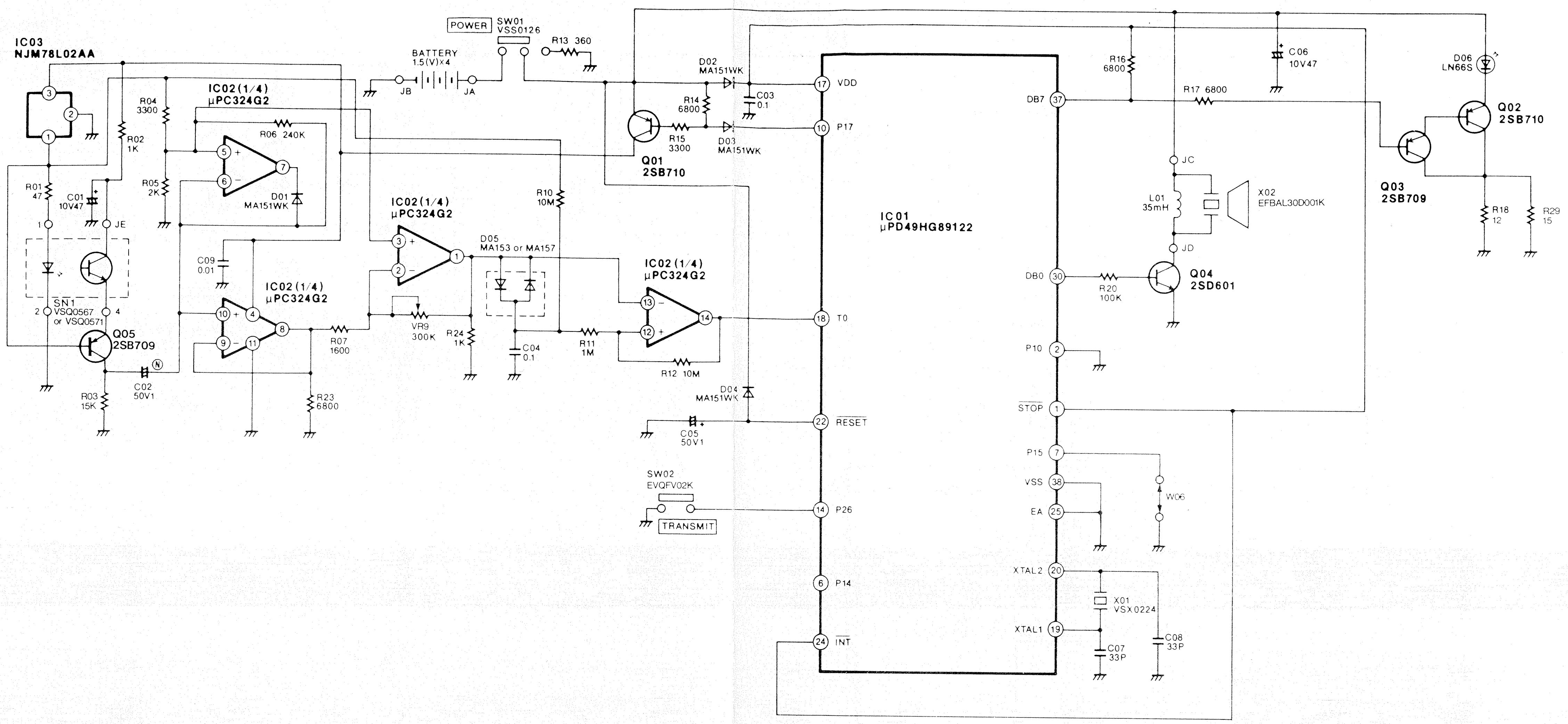
3-16. DIGITAL SCANNER C.B.A. (VEQ0639: NV-G21EE)


SN1
C01
VR09
JA
TO BATTERY
R02
Q05
D04
D02
R24
R23
R01
R03
C02
C06
L01
IC03 NJM 78L02UA-A
D03
D01
IC02 μPD324G2
D05
C05
JB
TO BATTERY
R13
Q01
R14
R15
SW01
X01

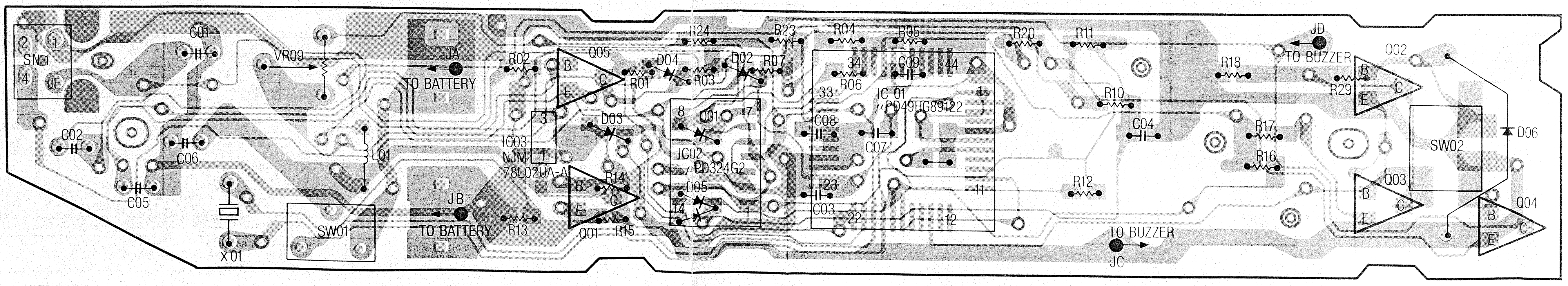
H65EE)


R21
120
VTR OUT
RF OUT
R26
270
L4
UO 1

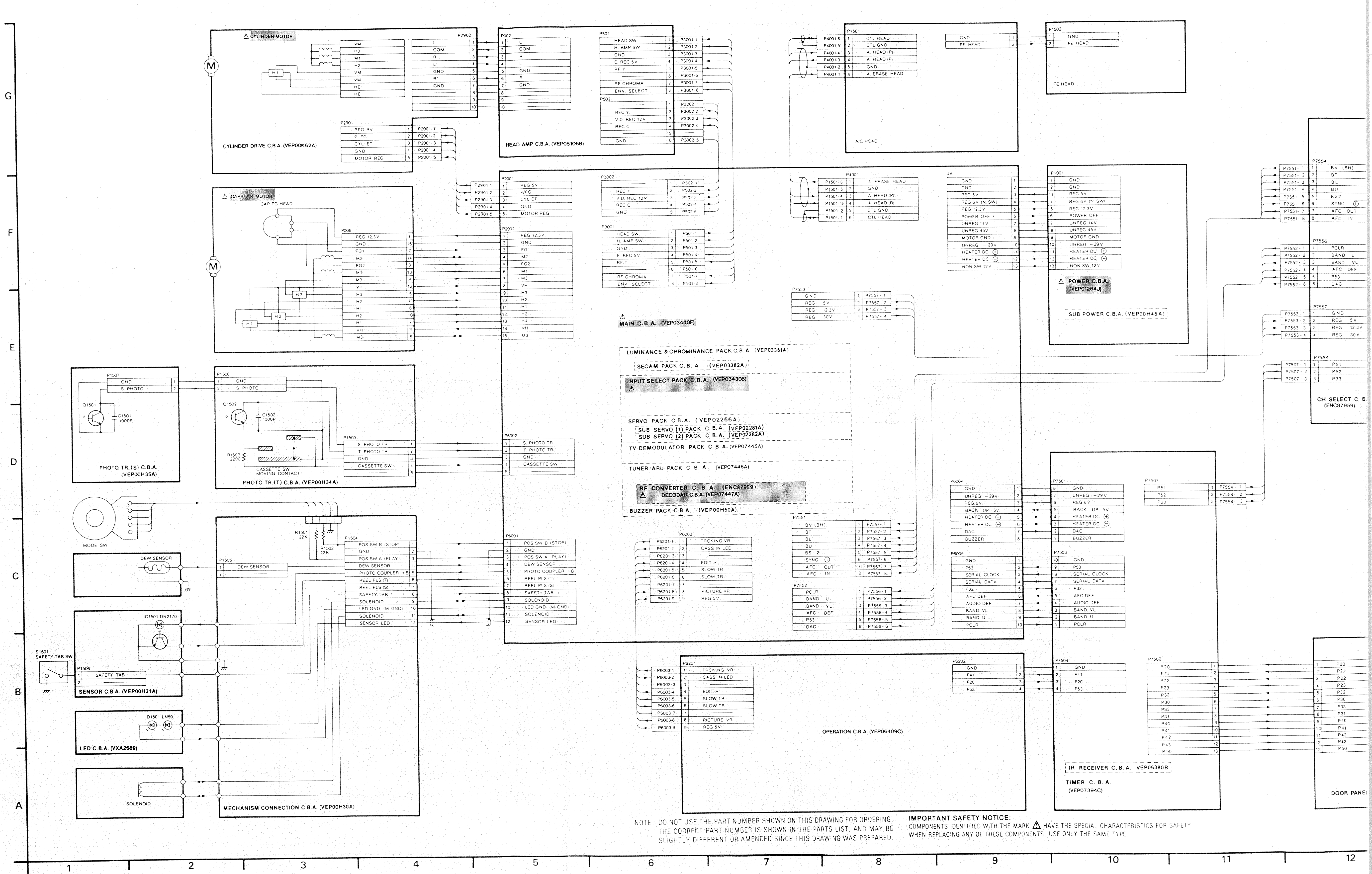
3-15. DIGITAL SCANNER SCHEMATIC DIAGRAM (NV-G21EE)


IC03
NJM78L02AA
POWER
SW01
VSS0126
R13 360
BATTERY
1.5(V)×4
JB
JA
IC02(1/4)
μPC324G2
R04
3300
R06 240K
R02
1K
R01
47
C01
10V47
JE
R05
2K
D01
MA151WK
SN1
VSQ0567
or VSQ0571
Q05
2SB709
R03
15K
C02
50V1
C09
0.01
R07
1600
R23
6800
VR9
300K
R24
1K
D05
MA153 or MA157
C04
0.1
R10
10M
R11
1M
R12 10M
D02
MA151WK
R14
6800
C03
0.1
R15
3300
D03
MA151WK
Q01
2SB710
D04
MA151WK
C05
50V1
SW02
EVQFV02K
TRANSMIT
IC01
μPD49HG89122
VDD
P17
T0
RESET
P26
P14
INT
DB7
DB0
P10
STOP
P15
VSS
EA
XTAL2
XTAL1
R16
6800
C06
10V47
R17 6800
JC
L01
35mH
X02
EFBAL30D001K
JD
R20
100K
Q04
2SD601
W06
X01
VSX0224
C07
33P
C08
33P
D06
LN66S
Q02
2SB710
Q03
2SB709
R18
12
R29
15

3-16. DIGITAL SCANNER C.B.A. (VEQ0639: NV-G21EE)


SN1
JE
C01
VR09
JA
TO BATTERY
R02
Q05
D04
R01
R03
D02
R07
R24
R23
R04
R06
R05
C09
IC01
μPD49HG89122
R20
R11
R18
JD
TO BUZZER
Q02
R29
R10
C04
R17
R16
D06
SW02
Q03
Q04
C02
C06
L01
IC03
NJM
78L02UA-A
D03
Q01
IC02
μPD324G2
D05
C08
C07
C03
R12
C05
X01
SW01
JB
TO BATTERY
R13
Q01
R14
R15
TO BUZZER
JC

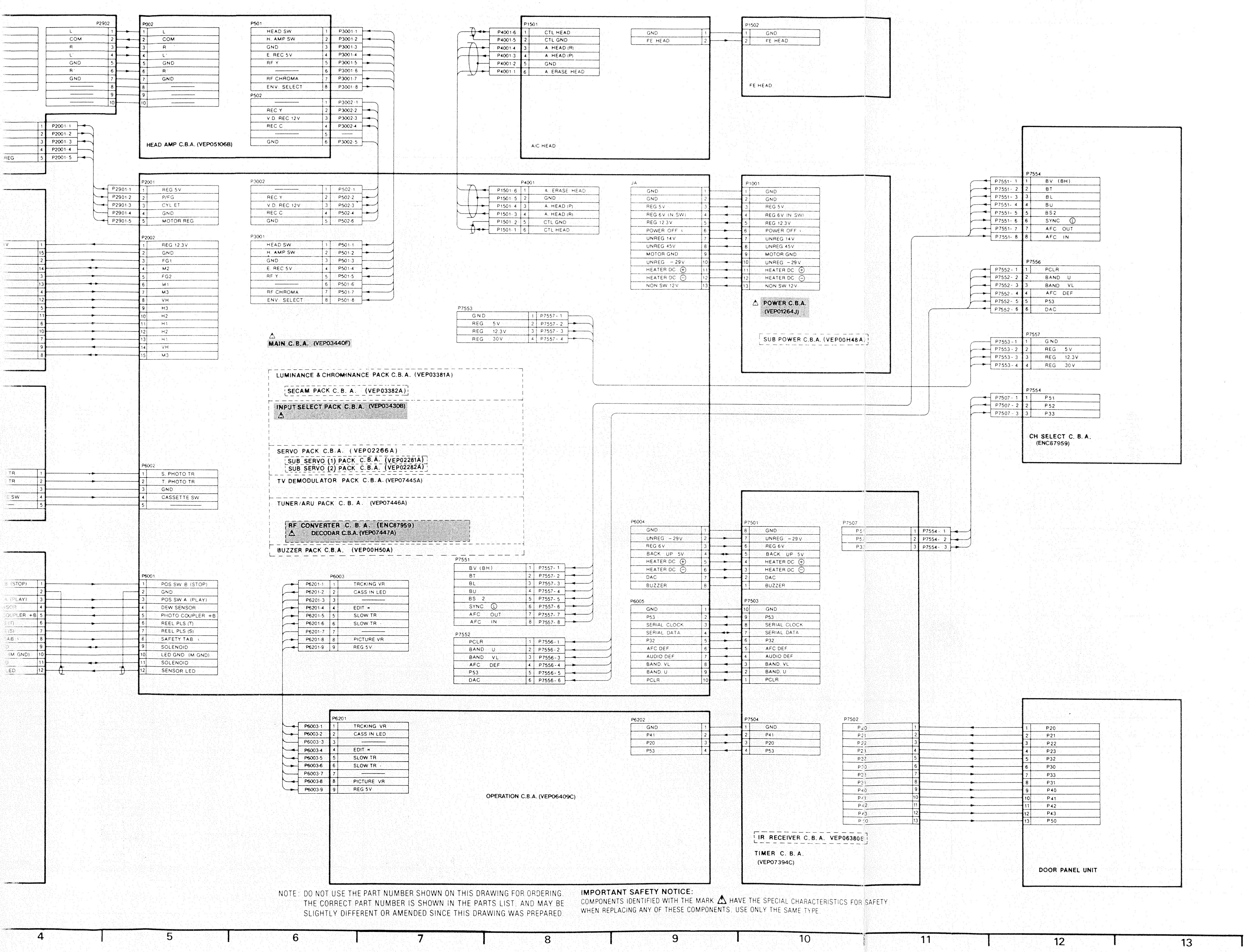
3-17. INTERCONNECTION SCHEMATIC DIAGRAM (NV-G21EE)


CYLINDER MOTOR
CYLINDER DRIVE C.B.A. (VEP00K62A)
HEAD AMP C.B.A. (VEP05106B)
A/C HEAD
FE HEAD
CAPSTAN MOTOR
CAP FG HEAD
MAIN C.B.A. (VEP03440F)
POWER C.B.A. (VEP01264J)
SUB POWER C.B.A. (VEP00H48A)
PHOTO TR.(S) C.B.A. (VEP00H35A)
PHOTO TR.(T) C.B.A. (VEP00H34A)
MODE SW
DEW SENSOR
S1501 SAFETY TAB SW
SENSOR C.B.A. (VEP00H31A)
IC1501 DN2170
D1501 LN59
LED C.B.A. (VXA2689)
SOLENOID
MECHANISM CONNECTION C.B.A. (VEP00H30A)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03381A)
SECAM PACK C.B.A. (VEP03382A)
INPUT SELECT PACK C.B.A. (VEP03430B)
SERVO PACK C.B.A. (VEP02266A)
SUB SERVO (1) PACK C.B.A. (VEP02281A)
SUB SERVO (2) PACK C.B.A. (VEP02282A)
TV DEMODULATOR PACK C.B.A. (VEP07445A)
TUNER/ARU PACK C.B.A. (VEP07446A)
RF CONVERTER C.B.A. (ENC87959)
DECODAR C.B.A. (VEP07447A)
BUZZER PACK C.B.A. (VEP00H50A)
OPERATION C.B.A. (VEP06409C)
IR RECEIVER C.B.A. VEP06380B
TIMER C.B.A. (VEP07394C)
CH SELECT C.B
(ENC87959)
DOOR PANE
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

NOTE : DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

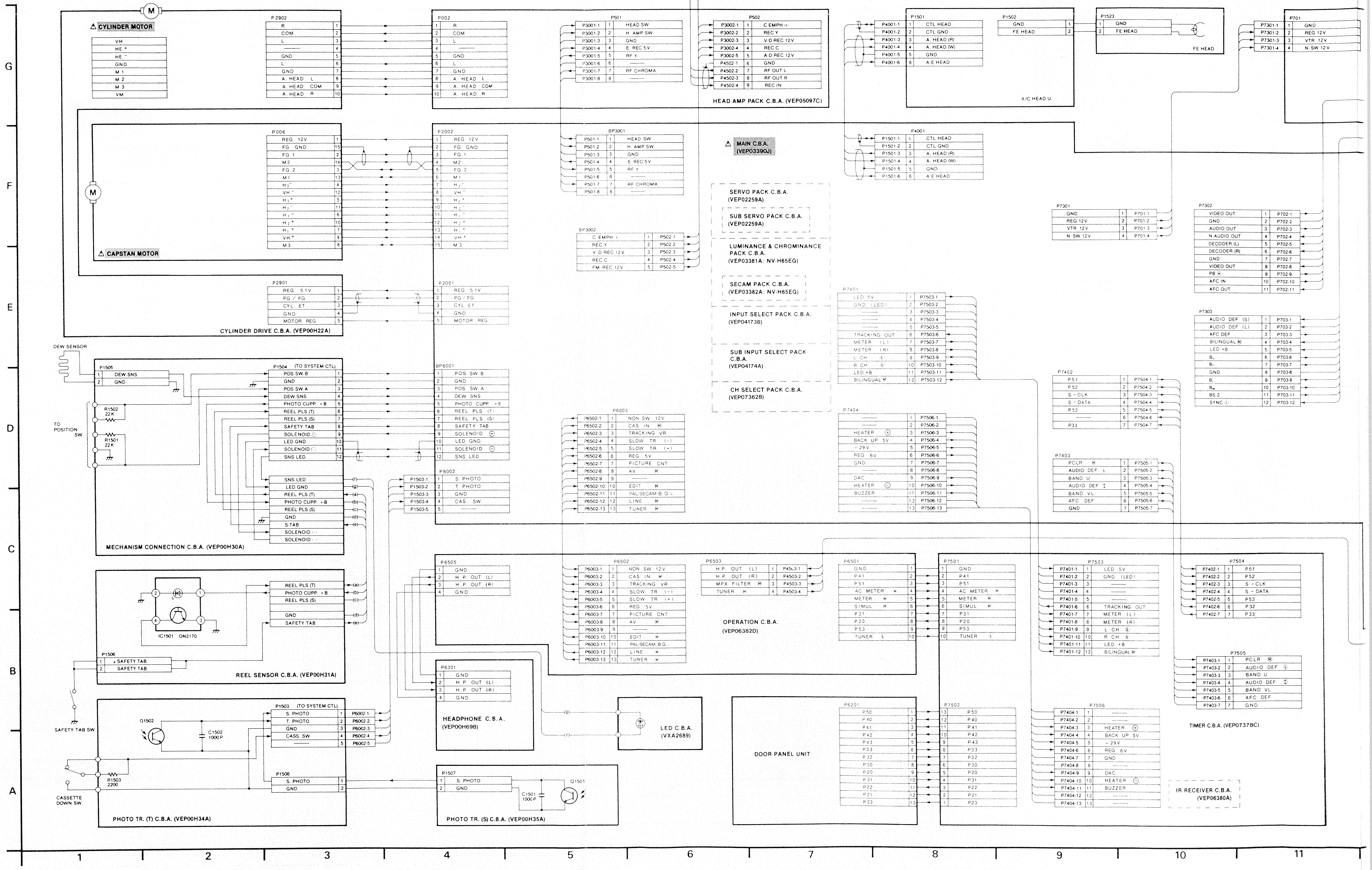
DIAGRAM (NV-G21EE)


HEAD AMP C.B.A. (VEP05106B)
A/C HEAD
FE HEAD
POWER C.B.A. (VEP01264J)
SUB POWER C.B.A. (VEP00H48A)
MAIN C.B.A. (VEP03440F)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03381A)
SECAM PACK C.B.A. (VEP03382A)
INPUT SELECT PACK C.B.A. (VEP03430B)
SERVO PACK C.B.A. (VEP02266A)
SUB SERVO (1) PACK C.B.A. (VEP02281A)
SUB SERVO (2) PACK C.B.A. (VEP02282A)
TV DEMODULATOR PACK C.B.A. (VEP07445A)
TUNER/ARU PACK C.B.A. (VEP07446A)
RF CONVERTER C.B.A. (ENC87959)
DECODAR C.B.A. (VEP07447A)
BUZZER PACK C.B.A. (VEP00H50A)
OPERATION C.B.A. (VEP06409C)
CH SELECT C.B.A. (ENC87959)
IR RECEIVER C.B.A. VEP06380E
TIMER C.B.A. (VEP07394C)
DOOR PANEL UNIT
4
5
6
7
8
9
10
11
12
13

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE
SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

3-18. INTERCONNECTION SCHEMATIC DIAGRAM (NV-H65EE)


CYLINDER MOTOR
CAPSTAN MOTOR
CYLINDER DRIVE C.B.A. (VEP00H22A)
DEW SENSOR
TO POSITION SW
R1502 22K
R1501 22K
MECHANISM CONNECTION C.B.A. (VEP00H30A)
IC1501 ON2170
REEL SENSOR C.B.A. (VEP00H31A)
SAFETY TAB SW
CASSETTE DOWN SW.
Q1502
C1502 1000P
R1503 2200
PHOTO TR. (T) C.B.A. (VEP00H34A)
PHOTO TR. (S) C.B.A. (VEP00H35A)
Q1501
C1501 1000P
HEADPHONE C.B.A. (VEP00H69B)
LED C.B.A. (VXA2689)
HEAD AMP PACK C.B.A. (VEP05097C)
A/C HEAD U.
FE HEAD
MAIN C.B.A. (VEP03390J)
SERVO PACK C.B.A. (VEP02259A)
SUB SERVO PACK C.B.A. (VEP02259A)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03381A: NV-H65EG)
SECAM PACK C.B.A. (VEP03382A: NV-H65EG)
INPUT SELECT PACK C.B.A. (VEP04173B)
SUB INPUT SELECT PACK C.B.A. (VEP04174A)
CH SELECT PACK C.B.A. (VEP07362B)
OPERATION C.B.A. (VEP06382D)
DOOR PANEL UNIT
TIMER C.B.A. (VEP07378C)
IR RECEIVER C.B.A. (VEP06380A)
P2902
P002
P501
P502
P1501
P1502
P1523
P701
P006
P2002
BP3001
P4001
BP3002
P2901
P2001
P7301
P7302
P7401
P7303
P7402
P7403
P7404
P1505
P1504 (TO SYSTEM CTL)
BP6001
P6003
P6002
P6505
P6502
P6503
P6501
P7501
P7503
P7504
P7505
P6301
P1503 (TO SYSTEM CTL)
P1506
P1507
P6201
P7502
P7506
G
F
E
D
C
B
A
1
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4
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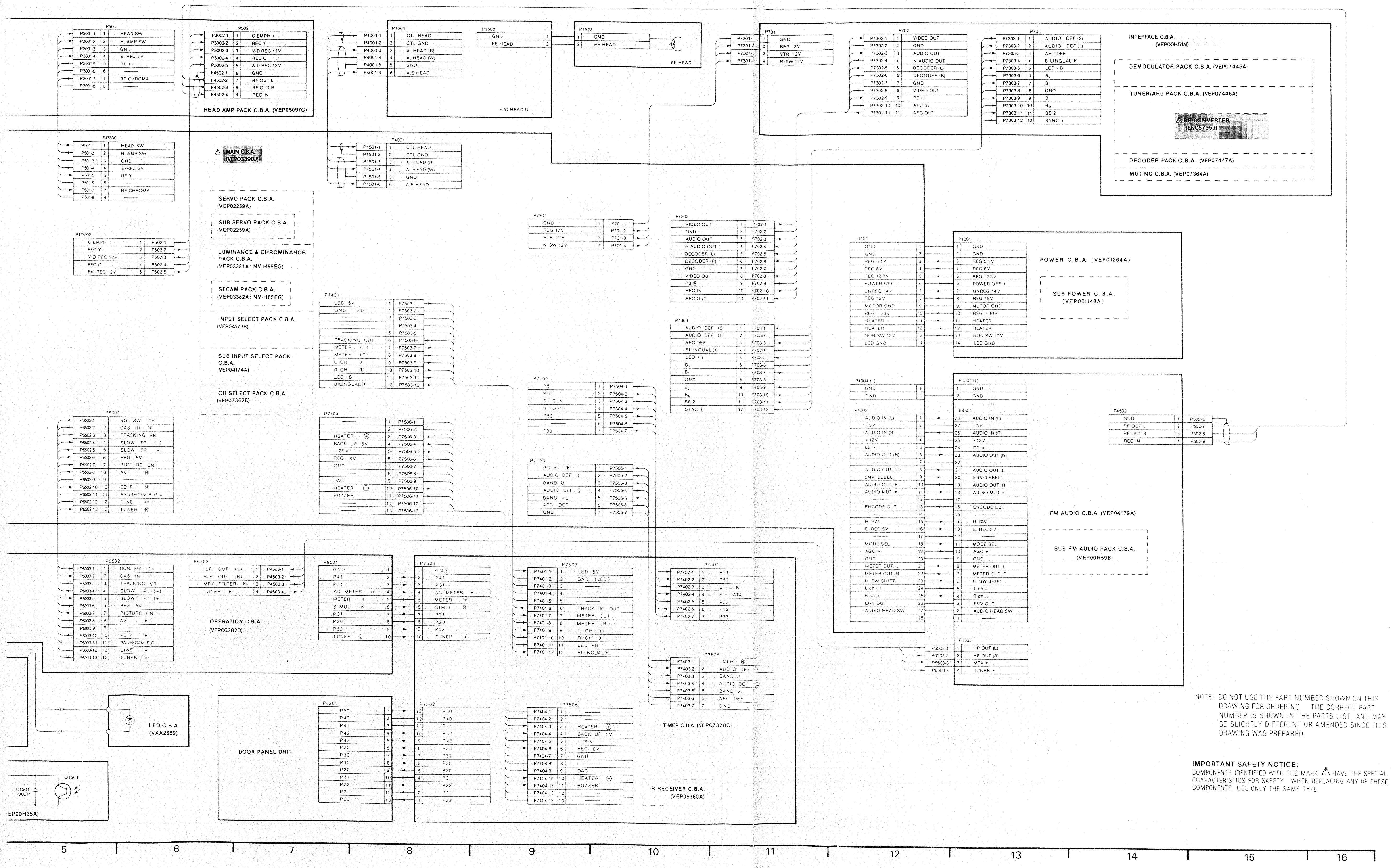

HEAD AMP PACK C.B.A. (VEP05097C)
P501
P502
BP3001
A/C HEAD U.
P1501
P1502
P1523
FE HEAD
P4001
⚠ MAIN C.B.A. (VEP03390J)
SERVO PACK C.B.A. (VEP02259A)
SUB SERVO PACK C.B.A. (VEP02259A)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03381A: NV-H65EG)
SECAM PACK C.B.A. (VEP03382A: NV-H65EG)
INPUT SELECT PACK C.B.A. (VEP04173B)
SUB INPUT SELECT PACK C.B.A. (VEP04174A)
CH SELECT PACK C.B.A. (VEP07362B)
BP3002
P7401
P7404
P7301
P7302
P7303
P7402
P7403
P701
P702
P703
INTERFACE C.B.A. (VEP00H51N)
DEMODULATOR PACK C.B.A. (VEP07445A)
TUNER/ARU PACK C.B.A. (VEP07446A)
⚠ RF CONVERTER (ENC87959)
DECODER PACK C.B.A. (VEP07447A)
MUTING C.B.A. (VEP07364A)
J1101
P1001
POWER C.B.A. (VEP01264A)
SUB POWER C.B.A. (VEP00H48A)
P4004
P4003
P4504
P4501
P4502
FM AUDIO C.B.A. (VEP04179A)
SUB FM AUDIO PACK C.B.A. (VEP00H59B)
P4503
P6003
P6502
P6503
P6501
OPERATION C.B.A. (VEP06382D)
P7501
P7503
P7504
P7505
P7502
P7506
P6201
TIMER C.B.A. (VEP07378C)
IR RECEIVER C.B.A. (VEP06380A)
DOOR PANEL UNIT
LED C.B.A. (VXA2689)
Q1501
C1501 1000P
EP00H35A)
5
6
7
8
9
10
11
12
13
14
15
16

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

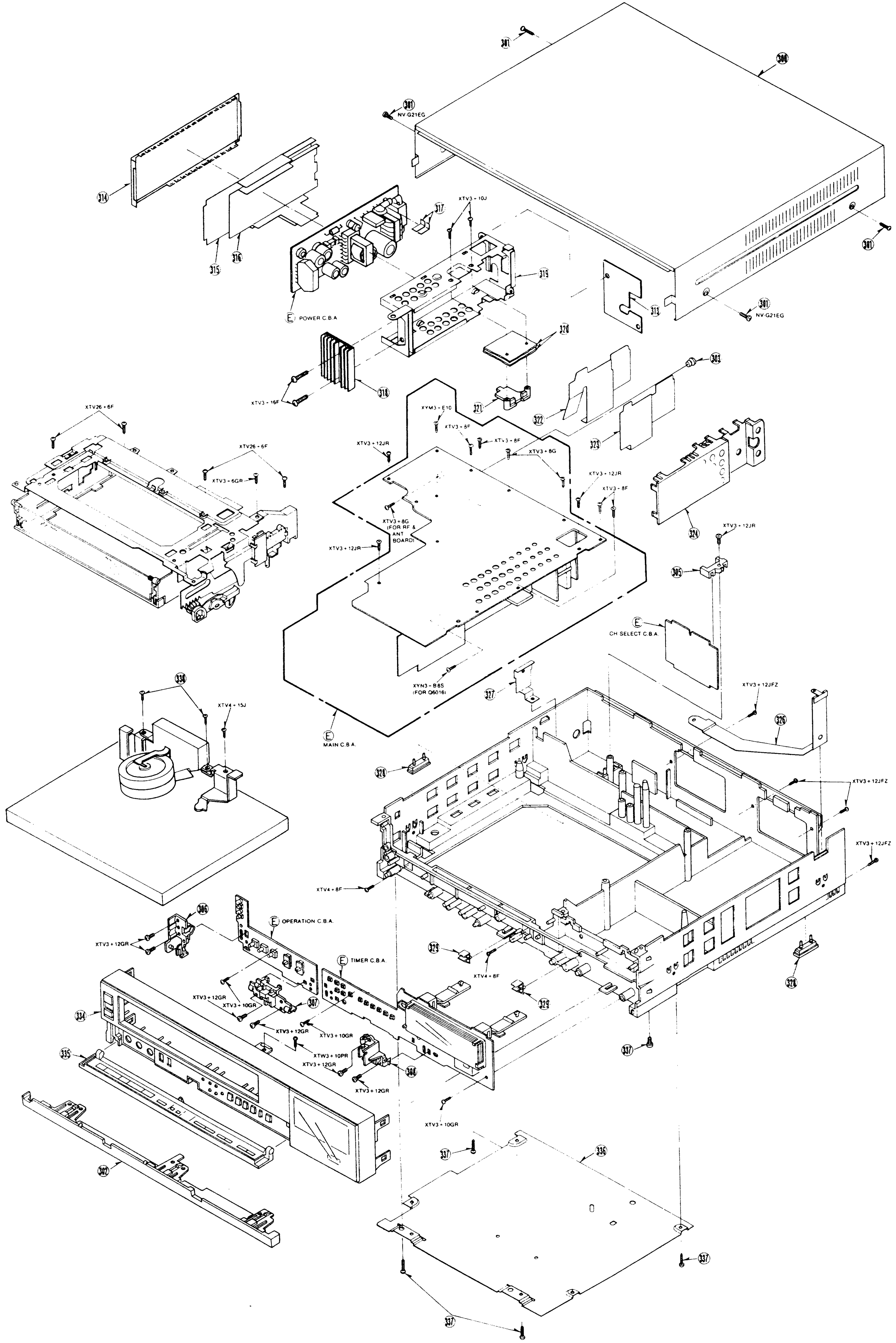
IMPORTANT SAFETY NOTICE:

COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

4. EXPLODED VIEWS & PARTS LIST

4-1. EXPLODED VIEW

❹ CASING PARTS SECTION (NV-G21EE)



301
300
NV-G21EG
314
315
316
317
318
319
320
321
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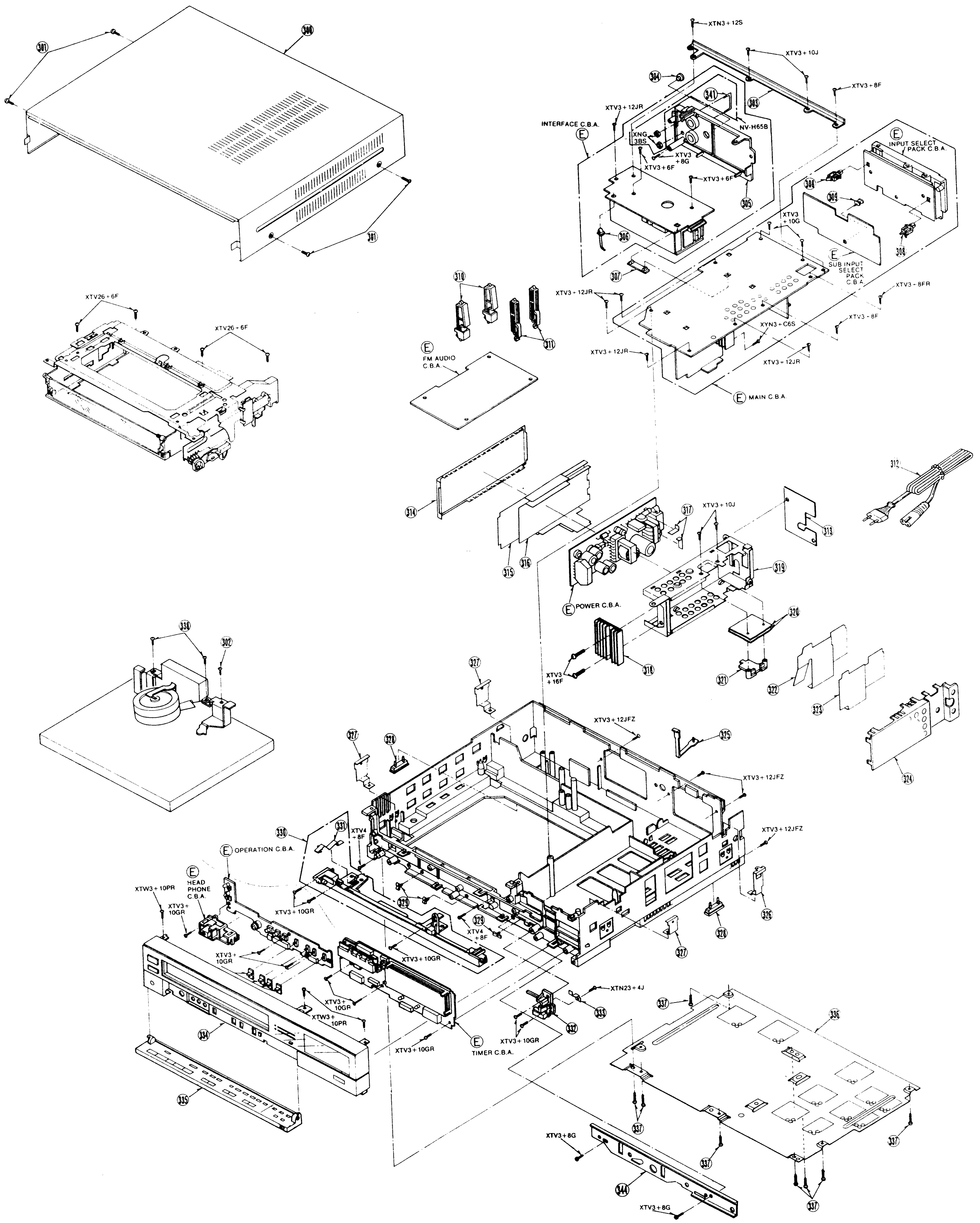
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
XTV3 + 10J
XTV3 + 16F
XTV26 + 6F
XTV3 + 6GR
XTV3 + 12JR
XTV3 + 8F
XTV3 + 8G
XYN3 + B8S
XTV4 + 15J
XTV3 + 12JFZ
XTV4 + 8F
XTV3 + 12GR
XTV3 + 10GR
XTV3 + 10PR
E POWER C.B.A.
E CH SELECT C.B.A.
E MAIN C.B.A.
E OPERATION C.B.A.
E TIMER C.B.A.

4-2.

❹ CASING PARTS SECTION (NV-H65EE)



301
300
XTN3 + 12S
XTV3 + 10J
XTV3 + 8F
NV-H65B
INTERFACE C.B.A.
XNG 3BS
XTV3 + 8G
XTV3 + 6F
XTV3 + 12JR
INPUT SELECT PACK C.B.A.
SUB INPUT SELECT PACK C.B.A.
XTV3 + 10G
XTV3 + 8FR
XYN3 + C6S
E MAIN C.B.A.
E FM AUDIO C.B.A.
XTV26 + 6F
E POWER C.B.A.
XTV3 + 16F
XTV3 + 12JFZ
E OPERATION C.B.A.
E HEAD PHONE C.B.A.
XTW3 + 10PR
XTV3 + 10GR
XTV4 + 8F
XTN23 + 4J
E TIMER C.B.A.
XTV3 + 8G

PARTS

1. NV-G21

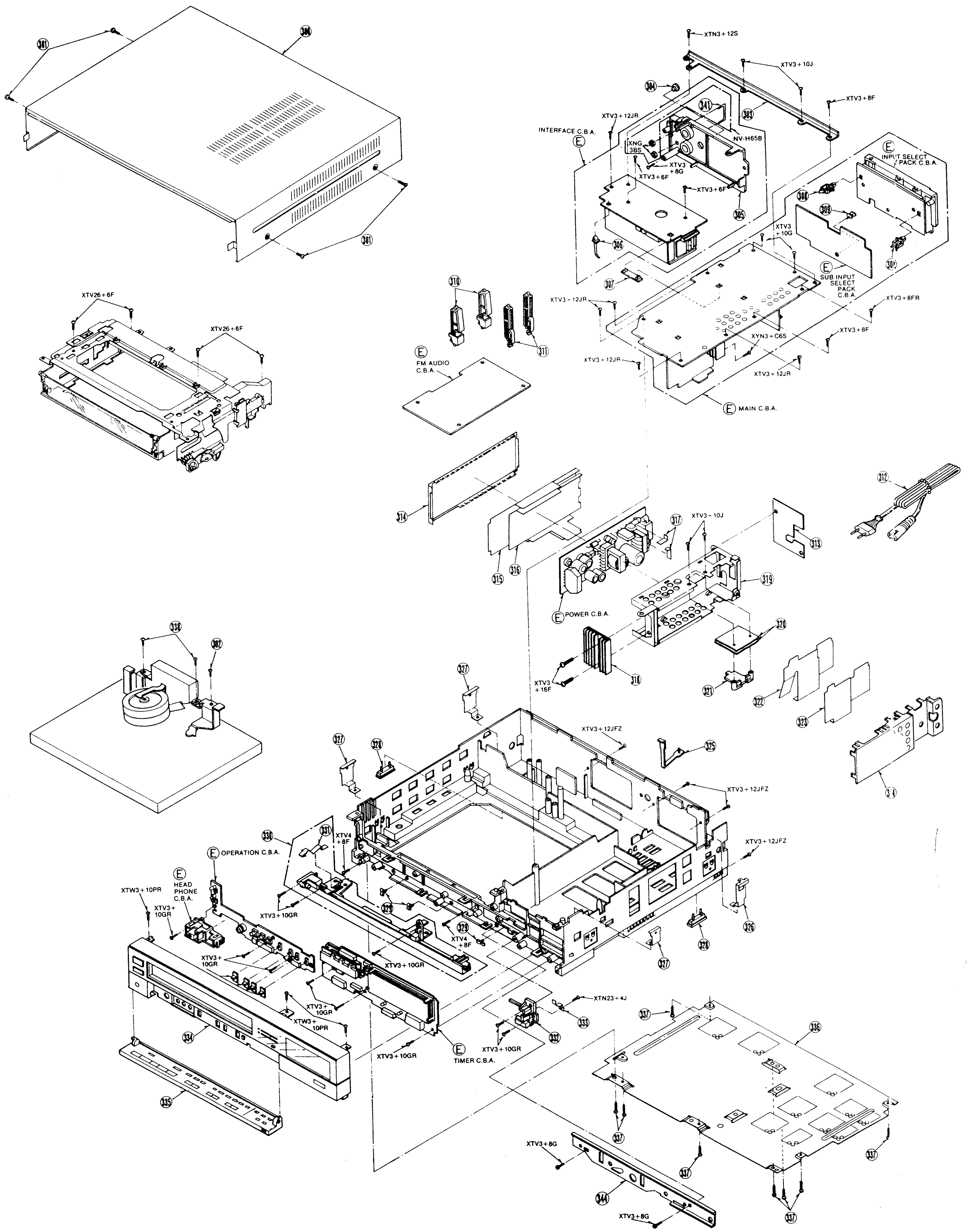
Note:1.* Be sure to
list.
2.IMPORTANT SA
Components i
tics for saf
same type.
3.Unless other
All resistor
FARADS(uf),P
4.The P.C.Boar

Ref.No.		Par
		VEP034
		VEP022
		VEP022
		VEP022
		VEP033
		VEP033
		VEP051
		VEP034
		VEP064
		VEP073
		VEP074
		VEP074

To guarantee the F
PARTS which are li

4-2.

❹ CASING PARTS SECTION (NV-H65EE)



PARTS LIST MODEL NO.: NV-G21EE

1. NV-G21EE Mechanical Replacement Parts List

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS ,K-1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P-uuF.
4.The P.C.Board units marked width'█'show below the main assembled parts.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP03440F	MAIN C.B.A. (SYSTEM COMTROL,SERVO, LUMINANCE & CHROMINANCE, AUDIO,POWER,DEMODULATOR, TUNER,INPUT SELECT,BUZZER)	1	<!> INCLUDING THE SERVO PACK C.B.A. (VEP02266A),SUB SERVO (1) PACK C.B.A (VEP02281A),SUB SERVO (2) PACK C.B.A (VEP02282A), LUMINANCE & CHROMINANCE PACK C.B.A.(VEP03381A), SECAM PACK C.B.A. (VEP03382A),INPUT SELECT PACK C.B.A. (VEP03432B), TV DEMODULATOR PACK C.B.A.(VEP07445A), TUNER ARU PACK C.B.A.(VEP07446A) DECODER PACK C.B.A. (VEP07447A), BUZZER PACK C.B.A. (VEP00H50A)
		VEP02266A	SERVO PACK C.B.A.	1	INCLUDING THE SUB SERVO (1) PACK C.B.A. (VEP02281A), SUB SERVO (2) PACK C.B.A. (VEP02282A) PART LIST IS INCLUDED IN MAIN C.B.A.
		VEP02281A	SUB SERVO (1) PACK C.B.A.	1	PART LIST IS INCLUDED IN MAIN C.B.A.
		VEP02282A	SUB SERVO (2) PACK C.B.A.	1	PART LIST IS INCLUDED IN MAIN C.B.A.
		VEP03381A	LUMINANCE & CHROMINANC PACK C.B.A.	1	INCLUDING THE SECAM PACK C.B.A. (VEP03382A), PART LIST IS INCLUDED IN MAIN C.B.A.
		VEP03382A	SECAM PACK C.B.A.	1	PART LIST IS INCLUDED IN MAIN C.B.A.
		VEP05106B	HEAD AMP PACK C.B.A.	1	
		VEP03432B	INPUT SELECT PACK C.B.A.	1	PART LIST IS INCLUDED IN MAIN C.B.A.
		VEP06409C	OPERATION C.B.A.	1	
		VEP07394C	TIMER C.B.A.	1	
		VEP07445A	TV DEMODULATOR PACK C.B.A.	1	PART LIST IS INCLUDED IN MAIN C.B.A.
		VEP07446A	TUNER ARU PACK C.B.A.	1	PART LIST IS INCLUDED IN MAIN C.B.A.
					INCLUDING THE RF CONVERTER UNIT (ENC87959)
		VEP07447A	DECODER PACK C.B.A.	1	PART LIST IS INCLUDED IN MAIN C.B.A.
		VEP07364A	MUTING C.B.A.	1	PART LIST IS INCLUDED IN MAIN C.B.A.
		VEP01264J	POWER C.B.A.	1	<!> INCLUDING THE SUB POWER C.B.A. (VEP00H48A)
		VEP00H48A	SUB POWER C.B.A.	1	PART LIST IS INCLUDED IN POWER C.B.A.
		VEP07395C	CHANNEL SELECT C.B.A.	1	
		ENC87959	RF CONVERTER	1	<!>
		TNV79461F2	TUNER	1	<!>
		VEP06380B	IR RECEIEVER C.B.A.	1	PART LIST IS INCLUDED IN TIMER C.B.A.
		VEP22014A	REMOTE CONTROL UNIT C.B.A.	1	
		VEP66033C	DIGITAL SCANNER C.B.A.	1	
		VEP00H50A	BUZZER PACK C.B.A.	1	PART LIST IS
		VEP00K62A	CYLINDER DRIVE C.B.A.	1	
		VEP00J52A	MECHANISM CONNECTION C.B.A.	1	
		VEP00H31A	REEL SENSOR C.B.A.	1	
		VXA2689	LED C.B.A.	1	
		VEP00K27A	PHOTO TR(T) C.B.A.	1	
		VEP00H35A	PHOTO TR(S) C.B.A.	1	
	█	VEP03390J	MAIN C.B.A. (SYSTEM CONTROL,SERVO, LUMINANCE & CHROMINANCE, AUDIO,CH SELECT,POWER)		INCLUDING THE SERVO PACK C.B.A. (VEP02263A),SUB SERVO PACK C.B.A (VEP02259A), LUMINANCE & CHROMINANCE PACK C.B.A.(VEP03381A), SECAM PACK C.B.A. (VEP03382A), INPUT SELECT PACK C.B.A.(VEP04173B), SUB INPUT SELECT PACK C.B.A. (VEP04174A),CH SELECT PACK C.B.A (VEP07362B)
			CAPACITORS		
C202		ECEA1HK4R7	ELECTROLYTIC 50V 4.7U	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C203		ECUX1H562KBN	CHIP 50V 5600P	1	
C204		ECEA1CKN100	ELECTROLYTIC 16V 10U	1	
C205		ECUX1E223KBN	CHIP 25V 0.022P	1	
C206		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C207		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C208		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C209		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C210		ECEA0JK330	ELECTROLYTIC 6.3V 33U	1	
C212		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C213		ECQV1H683JZ	MYLAR 50V 0.068U	1	
C214		ECUX1H102KBN	CHIP 50V 1000P	1	
C207		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C208		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C209		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C210		ECEA0JK330	ELECTROLYTIC 6.3V 33U	1	
C212		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C213		ECQV1H683JZ	MYLAR 50V 0.068U	1	
C214		ECUX1H102KBN	CHIP 50V 1000P	1	
C215		ECEA1HKNR33	ELECTROLYTIC 50V 0.33U	1	
C216		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C217		ECEA1HKR47	ELECTROLYTIC 50V 0.47U	1	
C218		ECUX1H472KBN	CHIP 50V 4700P	1	
C219		ECQV1H334JZ	MYLAR 50V 0.33U	1	
C220		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C221		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C222		ECQB1H562JH	MYLAR 50V 5600P	1	
C223		ECQB1H223JH	MYLAR 50V 0.022U	1	
C224		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C225		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C226		ECUX1H102KBN	CHIP 50V 1000P	1	
C227		ECUX1H332KBN	CHIP 50V 3300P	1	
C229		ECQB1H272JH	MYLAR 50V 2700P	1	
C230		ECEA1CKN100	ELECTROLYTIC 16V 10U	1	
C231		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C232		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C234		ECUX1H102KBN	CHIP 50V 1000P	1	
C236		ECQB1H223JH	MYLAR 50V 0.022U	1	
C237		ECQB1H562JH	MYLAR 50V 5600P	1	
C238		ECEA0JK101	ELECTROLYTIC 6.3V 100U	1	
C239		ECEA0JK221	ELECTROLYTIC 6.3V 220U	1	
C240		ECEA16Z10	ELECTROLYTIC 16V 10U	1	
C241		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C242		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C243		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C244		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C245		ECUX1H562KBN	CHIP 50V 5600P	1	
C246		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C247		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C248		ECUX1H102KBN	CHIP 50V 1000P	1	
C249		ECCF1H101JC	CERAMIC 50V 100P	1	
C250		ECCF1H271JC	CERAMIC 50V 270P	1	
C251		ECCF1H180JC	CERAMIC 50V 18P	1	
C252		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C253		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C254		VCYD1C473MR1	SEMICONDUCTOR 16V 0.047U	1	
C255		ECKF1H332KB	CERAMIC 50V 3300P	1	
C260		ECUM1H103KBN	CHIP 50V 0.001U		
C271		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C272		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C273		ECQB1H103JH	MYLAR 50V 0.01U	1	
C301		ECUX1H271KBN	CHIP 50V 270P	1	
C302		ECEA0JU331	ELECTROLYTIC 6.3V 330U	1	
C303		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C304		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C305		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C306		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C307		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C309		ECUX1H560JCN	CHIP 50V 56P	1	
C310		ECUX1H820JCN	CHIP 50V 82P	1	
C311		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C312		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C313		ECUX1H100DCN	CHIP 50V 10P	1	
C314		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C315		ECEA1EKN2R2	ELECTROLYTIC 25V 2.2U	1	
C316		ECUX1H180JCN	CHIP 50V 18P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C317		ECUX1H180JCN	CHIP 50V 18P	1	
C318		ECUX1H180JCN	CHIP 50V 18P	1	
C319		ECUX1H180JCN	CHIP 50V 18P	1	
C321		ECUX1H040CCN	CHIP 50V 4P	1	
C322		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C323		ECUX1H120JCN	CHIP 50V 12P	1	
C325		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C326		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C328		ECEA1HK0R1	ELECTROLYTIC 50V 0.1U	1	
C330		ECUX1H220JCN	CHIP 50V 22P	1	
C331		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C332		ECUX1H680JCN	CHIP 50V 68P	1	
C333		ECUX1H151JCN	CHIP 50V 150P	1	
C334		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C335		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C336		ECUX1H470JCN	CHIP 50V 47P	1	
C337		ECUX1H100DCN	CHIP 50V 10P	1	
C701		ECEA1CKS220	ELECTROLYTIC 16V 22U	1	
C702		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C703		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C707		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C708		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C709		ECKF1H103ZF	CERAMIC 50V 0.001U	1	
C714		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C715		ECUX1H103ZF	CHIP 50V 0.01U	1	
C716		ECUX1H103ZF	CHIP 50V 0.01U	1	
C717		ECUX1H103ZF	CHIP 50V 0.01U	1	
C718		ECUX1H103ZF	CHIP 50V 0.01U	1	
C719		ECUX1H103ZF	CHIP 50V 0.01U	1	
C720		ECUX1H103ZF	CHIP 50V 0.01U	1	
C721		ECEA1HKR27	ELECTROLYTIC 50V 0.27U	1	
C722		ECUX1H103ZF	CHIP 50V 0.01U	1	
C723		ECUX1H150JC	CHIP 50V 15P	1	
C725		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C727		ECUX1H080DCN	CHIP 50V 80P	1	
C728		ECUX1H103ZF	CHIP 50V 0.01U	1	
C730		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C731		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C732		ECQV1H224JZ	MYLAR 50V 0.22U	1	
C734		ECUX1H103ZF	CHIP 50V 0.01U	1	
C735		ECUX1H070DCN	CHIP 50V 7P	1	
C736		ECQB1H103JH	MYLAR 50V 0.01U	1	
C737		ECUX1H151JC	CHIP 50V 150P	1	
C739		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C740		ECUX1H103ZF	CHIP 50V 0.01U	1	
C741		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C742		ECUX1H030DCN	CHIP 50V 3P	1	
C743		ECUX1H270JSN	CHIP 50V 27P	1	
C744		ECEA1HKR47	ELECTROLYTIC 50V 0.47U	1	
C745		ECUX1H680JPN	CHIP 50V 68P	1	
C746		ECUX1H150JC	CHIP 50V 15P	1	
C747		ECUX1H103ZF	CHIP 50V 0.01U	1	
C748		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C749		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C760		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C764		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C801		ECUX1H391KBN	CHIP 50V 390P	1	
C802		ECQB1H223JH	MYLAR 50V 0.022U	1	
C803		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C804		ECUX1H270JCN	CHIP 50V 27P	1	
C805		ECUX1H471KBN	CHIP 50V 470P	1	
C806		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C807		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C808		ECEA10Z100	ELECTROLYTIC 10V 10U	1	
C809		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C810		ECUX1H050CCN	CHIP 50V 5P	1	
C811		ECUX1H102KBN	CHIP 50V 1000P	1	
C812		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C813		ECQV1H154JZ	MYLAR 50V 0.15U	1	
C814		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C815		ECUX1H471KBN	CHIP 50V 470P	1	
C816		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C817		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C818		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C819		ECUX1H103ZFN	CHIP 50V 0.01U	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C820		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C821		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C822		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C823		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C824		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C825		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C826		ECUX1H820JCN	CHIP 50V 82P	1	
C827		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C851		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C852		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C853		ECEA10Z47	ELECTROLYTIC 10V 47U	1	
C854		ECQV1H563JZ	MYLAR 50V 0.056U	1	
C855		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C856		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C857		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C858		ECKF1H681KB	CERAMIC 50V 680P	1	
C2001		ECQB1H333JH	MYLAR 50V 0.033U	1	
C2002		ECQB1H333JH	MYLAR 50V 0.033U	1	
C2003		ECQB1H333JH	MYLAR 50V 0.033U	1	
C2004		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C2005		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C2006		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C2007		ECQB1H223JH	MYLAR 50V 0.022U	1	
C2008		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2011		ECEA1CK101	ELECTROLYTIC 16V 100U	1	
C2012		ECUX1H332KBN	CHIP 50V 3300P	1	
C2013		ECUX1H332KBN	CHIP 50V 3300P	1	
C2014		ECUX1H332KBN	CHIP 50V 3300P	1	
C2016		ECEA25Z47	ELECTROLYTIC 25V 4.7U	1	
C2017		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C2018		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2019		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2020		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2021		ECQB1H223JH	MYLAR 50V 0.022U	1	
C2022		ECQV1H274JZ	MYLAR 50V 0.27U	1	
C2023		ECQV1H474JZ	MYLAR 50V 0.47U	1	
C2701		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C2702		ECQV1H224JZ	MYLAR 50V 0.22U	1	
C3001		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C3002		ECEA0JU471	ELECTROLYTIC 6.3V 470U	1	
C3003		ECUX1H220JCN	CHIP 50V 22P	1	
C3004		ECUX1H151JCN	CHIP 50V 150P	1	
C3005		ECUX1H681JN	CHIP 50V 680P	1	
C3006		ECUX1H220JCN	CHIP 50V 22P	1	
C3007		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C3008		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C3012		ECUX1H150JCN	CHIP 50V 15P	1	
C3013		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C3016		ECCD1H100DC	C.CAPACITOR 50V 10P	1	
C3501		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3502		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3503		VCYD1E332KR	SEMICONDUCTOR 25V 3300P	1	
C3504		VCYD1E332KR	SEMICONDUCTOR 25V 3300P	1	
C3505		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3801		ECEA1CK220	ELECTROLYTIC 16V 22U	1	
C3802		ECEA1CK220	ELECTROLYTIC 16V 22U	1	
C3803		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C3804		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C3805		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C3806		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C3807		ECKF1H102KB	CERAMIC 50V 1000P	1	
C3808		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C3809		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C3810		ECEA1HK3R3	ELECTROLYTIC 50V 3.3U	1	
C3811		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C3812		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C3813		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C3814		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3815		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3816		ECKF1H121KB	CERAMIC 50V 120P	1	
C3817		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C3818		ECKF1H102KB	CERAMIC 50V 1000P	1	
C3819		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C3820		ECKF1H221KB	CERAMIC 50V 220P	1	
C4002		ECUX1H102KBN	CHIP 50V 1000P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4003		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4004		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4005		ECEA1AK330	ELECTROLYTIC 10V 33U	1	
C4006		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4007		ECEA1CKL100	ELECTROLYTIC 16V 10U	1	
C4008		ECUX1H471KBN	CHIP 50V 470P	1	
C4009		ECUX1H101KN	CHIP 50V 100P	1	
C4010		ECQB1H123JH	MYLAR 50V 0.012U	1	
C4011		ECEA1CKL100	ELECTROLYTIC 16V 10U	1	
C4012		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4013		ECEA1AK220	ELECTROLYTIC 10V 22U	1	
C4014		ECEA1AK101	ELECTROLYTIC 10V 100U	1	
C4015		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4016		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4018		ECQB1H223JH	MYLAR 50V 0.022U	1	
C4019		ECQB1H333KH	MYLAR 50V 0.033U	1	
C4020		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4021		ECUX1H102KBN	CHIP 50V 1000P	1	
C4022		ECQB1H103JH	MYLAR 50V 0.01U	1	
C4023		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C4024		ECQP1222JZ	MYLAR 100V 2200P	1	
C4025		ECEA1CKL100	ELECTROLYTIC 16V 10U	1	
C4026		ECCF2H121K	CERAMIC 500V 120P	1	
C6001		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C6007		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C6011		ECUX1H103KBN	CHIP 50V 0.01U	1	
C6012		ECUX1H103KBN	CHIP 50V 0.01U	1	
C6014		ECUX1H221KN	CHIP 50V 220P	1	
C6017		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6018		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6019		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6020		ECUX1H103KBN	CHIP 50V 0.01U	1	
C6022		ECEA0JK330	ELECTROLYTIC 6.3V 33U	1	
C6023		ECUX1H103KBN	CHIP 50V 0.01U	1	
C6024		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C6025		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C6026		ECQB1H103JH	MYLAR 50V 0.01U	1	
C6027		ECUX1H271KBN	CHIP 50V 270P	1	
C6028		ECUX1H271KBN	CHIP 50V 270P	1	
C6029		ECUX1H271KBN	CHIP 50V 270P	1	
C7518		EECS5R5V473	GOLD 5.5V 0.047	1	
C7573		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C7651		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7652		ECEA1CKN330	ELECTROLYTIC 16V 33U	1	
C7653		ECQB1H392JH	MYLAR 50V 3900P	1	
C7654		ECQB1H103JH	MYLAR 50V 0.01U	1	
C7655		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7656		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7657		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7658		ECQP1562JZ	MYLAR 100V 5600P	1	
C7659		ECQB1H272JH	MYLAR 50V 2700P	1	
C8001		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C8002		ECUX1H103ZFN	CHIP 50V 0.01U	1	
			DIODES		
D201		MA165	DIODE	1	
D202		MA165	DIODE	1	
D203		MA165	DIODE	1	
D204		MA156	DIODE	1	
D301		MA165	DIODE	1	
D302		MA165	DIODE	1	
D303		1SS283	DIODE	1	
D304		1SS283	DIODE	1	
D710		MA3100L	DIODE	1	
D712		MA27WA	DIODE	1	
D801		MA165	DIODE	1	
D802		MA165	DIODE	1	
D2007		MA165	DIODE	1	
D3001		MA165	DIODE	1	
D3002		MA165	DIODE	1	
D3004		ERA15-01V5	DIODE	1	
D3501		MA165	DIODE	1	
D3502		MA27W	DIODE	1	
D3801		MA165	DIODE	1	

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D6001		11ES1	DIODE	1	
D6002		MA165	DIODE	1	
D6005		MA165	DIODE	1	
D6009		MA165	DIODE	1	
D6010		MA165	DIODE	1	
D6011		MA165	DIODE	1	
D6012		MA165	DIODE	1	
D6017		11ES1	DIODE	1	
D6019		MA4140M	DIODE	1	
D6020		MA4110L	DIODE	1	
D6021		MA165	DIODE	1	
D6022		MA165	DIODE	1	
D6023		MA165	DIODE	1	
D6024		MA165	DIODE	1	
D6028		MA165	DIODE	1	
D6029		MA165	DIODE	1	
D6030		MA165	DIODE	1	
D6031		MA165	DIODE	1	
D7552		11ES1	DIODE	1	
D7555		MA27WB	DIODE	1	
D7556		MA165	DIODE	1	
D7574		LN28WPVT	LED	1	
			DELAY LINES		
DL301		EFDEN645A51F	DELAY LINE	1	
DL801		EFDHR124A13A	DELAY LINE	1	
			FILTERS		
FL301		ELB4M022	FILTER	1	
FL303		VLF0499	FILTER	1	
FL801		VLF0299	FILTER	1	
FL851		VLF0143	FILTER	1	
FL4001		VLF0332	FILTER	1	
			INTEGRATED CIRCUITS		
IC201		UPD6160CA605	IC	1	
IC202		MN15311VJC	IC	1	
IC203		UPC358C	IC	1	
IC301		VEFY017	FIC	1	
IC701		M51366SP	IC	1	
IC753		UPD4066BC	IC	1	
IC801		VEFC013	FIC	1	
IC851		BA7025L	IC	1	
IC2001		BA6430S	IC	1	
IC2702		UPC358C	IC	1	
IC3501		BA7004	IC	1	
IC3801		M5202P	IC	1	
IC3802		AN6552	IC	1	
IC4001		BA7752LS	IC	1	
IC6001		MN15362VBR	IC	1	
IC6002		UPC393C	IC	1	
IC6003		UPD4510BC	IC	1	
IC6004		MN1280	IC	1	
IC7651		AN5421	IC	1	
			COILS		
L202		VLQEL05F101K	COIL 100UH	1	
L301		VLQEL05F180K	COIL 18UH	1	
L302		VLQEL05F180K	COIL 18UH	1	
L303		VLQEL05F101K	COIL 100UH	1	
L304		VLQEL05F101K	COIL 100UH	1	
L305		VLQEL05F101K	COIL 100UH	1	
L306		VLQEL05F820K	COIL 82UH	1	
L307		VLQEL05F101K	COIL 100UH	1	
L310		VLQEL05F101K	COIL 100UH	1	
L311		VLQEL05F270K	COIL 27UH	1	
L701		VLQEL05F680K	COIL 68UH	1	
L702		VLQEL05F680K	COIL 68UH	1	
L703		VLQEL05F221K	COIL 220UH	1	
L704		VLQEL05F221K	COIL 220UH	1	
L712		ELQF1R2KB	COIL 1.2UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L714		ELQF1R2KB	COIL 1.2UH	1	
L715		VLQEL05F680K	COIL 68UH	1	
L716		VLQEL05F560K	COIL 56UH	1	
L717		VLQEL05F680K	COIL 68UH	1	
L718		VLQEL05F680K	COIL 68UH	1	
L719		VLQEL05F5R6K	COIL 5.6UH	1	
L801		VLQEL05F150K	COIL 15UH	1	
L802		VLQEL05F470K	COIL 47UH	1	
L803		VLQEL05F270K	COIL 27UH	1	
L804		VLQEL05F151K	COIL 150UH	1	
L805		VLQEL05F101K	COIL 100UH	1	
L806		VLQEL05F470K	COIL 47UH	1	
L807		VLQEL05F331K	COIL 330UH	1	
L808		VLQEL05F681K	COIL 680UH	1	
L809		VLQEL05F681K	COIL 680UH	1	
L810		VLQEL05F101K	COIL 100UH	1	
L851		VLQEL05F101K	COIL 100UH	1	
L2001		VLQEL05F102K	COIL 1000UH	1	
L3001		VLQEL05F101K	COIL 100UH	1	
L3002		VLQEL05F101K	COIL 100UH	1	
L3003		VLQEL05F101K	COIL 100UH	1	
L3004		VLQEL05F6R8J	COIL 6.8UH	1	
L3005		VLQEL05F120J	COIL 12UH	1	
L3501		VLQEL05F101K	COIL 100UH	1	
L3502		VLQEL05F101K	COIL 100UH	1	
L3801		VLQEL05F101K	COIL 100UH	1	
L4001		VLQEL07F822J	COIL 8200UH	1	
L4002		VLQEL05F471K	COIL 470UH	1	
L7551		VLQEL05F102K	COIL 1000UH	1	
L7552		VLQEL05F101K	COIL 100UH	1	
			CONNECTORS		
P001		VJS1232T	CONNECTOR (FEMALE)	1	
P006		VJS1902	CONNECTOR (FEMALE)	1	
P501		VJS1235T	CONNECTOR (FEMALE)	1	
P502		VJS1233T	CONNECTOR (FEMALE)	1	
P1504		VJS1745	CONNECTOR (FEMALE)	1	
P2002		VJP1932T	CONNECTOR (MALE)	1	
P2002		VJS1932	CONNECTOR (FEMALE)	1	
P3003		VJP1258	CONNECTOR (MALE)	1	
P4001		VJP1233T	CONNECTOR(MALE) 6P	1	
P6002		VJS1935	CONNECTOR (FEMALE)	1	
P6004		VJS1467	CONNECTOR(FEMALE)	1	
P6005		VJS1917	CONNECTOR (FEMALE)	1	
P6201		VJS1236T	CONNECTOR (FEMALE)	1	
P7506		VJS1231R	CONNECTOR (FEMALE)	1	
P7507		VJS1230T	CONNECTOR (FEMALE)	1	
P7551		VJS1235T	CONNECTOR (FEMALE)	1	
P7552		VJS1233T	CONNECTOR (FEMALE)	1	
P7553		VJS1231T	CONNECTOR (FEMALE)	1	
P7554		VJS1231T	CONNECTOR (FEMALE)	1	
P7555		VJS1232T	CONNECTOR (FEMALE)	1	
P7556		VJS1233T	CONNECTOR (FEMALE)	1	
P7557		VJS1235T	CONNECTOR (FEMALE)	1	
P7801		VJS1234T	CONNECTOR (FEMALE)	1	
P7802		VJS1231T	CONNECTOR (FEMALE)	1	
			PACK PINS		
PK201		VJR0189	PACK PIN	1	
PK202		VJR0190	PACK PIN	1	
PK203		VJR0190	PACK PIN	1	
PK271		VJR0188	PACK PIN	1	
PK3501		VJR0161	PACK PIN	1	
PK3502		VJR0283	PACK PIN	1	
PK3503		VJR0244	PACK PIN	1	
PK3504		VJR0244	PACK PIN	1	
PK7501		VJR0244	PACK PIN	1	
			TRANSISTORS		
Q201		2SD636	TRANSISTOR	1	
Q202		2SD636	TRANSISTOR	1	
Q203		2SB641	TRANSISTOR	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q204		2SB641	TRANSISTOR	1	
Q205		2SB641	TRANSISTOR	1	
Q206		2SB641	TRANSISTOR	1	
Q207		2SC2206	TRANSISTOR	1	(B,C)
Q208		2SD636	TRANSISTOR	1	
Q271		2SD636	TRANSISTOR	1	
Q272		2SD636	TRANSISTOR	1	
Q273		2SD636	TRANSISTOR	1	
Q274		2SD636	TRANSISTOR	1	
Q301		2SD601	TRANSISTOR CHIP	1	
Q302		2SB709	TRANSISTOR CHIP	1	
Q303		2SB709	TRANSISTOR CHIP	1	
Q304		2SD601	TRANSISTOR CHIP	1	
Q305		2SB709	TRANSISTOR CHIP	1	
Q306		2SD601	TRANSISTOR CHIP	1	
Q307		2SC2295	TRANSISTOR	1	
Q308		2SB709	TRANSISTOR CHIP	1	
Q703		2SD601	TRANSISTOR CHIP	1	(S,T)
Q710		2SC2377	TRANSISTOR	1	(C)
Q712		2SC1317	TRANSISTOR	1	
Q713		2SD1328	TRANSISTOR CHIP	1	(S,T)
Q714		2SD601	TRANSISTOR CHIP	1	
Q771		2SD601	TRANSISTOR CHIP	1	
Q801		2SC2295	TRANSISTOR	1	
Q802		2SD601	TRANSISTOR CHIP	1	
Q803		2SD601	TRANSISTOR CHIP	1	
Q804		2SC2295	TRANSISTOR	1	
Q805		2SD601	TRANSISTOR CHIP	1	
Q806		2SC2295	TRANSISTOR	1	
Q851		2SC2206	TRANSISTOR	1	
Q2001		2DA1309	TRANSISTOR	1	
Q2002		2SC3311	TRANSISTOR	1	
Q3001		2SA1309	TRANSISTOR	1	
Q3002		2SB641	TRANSISTOR	1	
Q3003		2SC3314	TRANSISTOR	1	
Q3501		2SC2206	TRANSISTOR	1	
Q3801		2SB641	TRANSISTOR	1	(Q,R,S)
Q4001		2SC1423A	TRANSISTOR	1	(R)
Q4002		2SC3311A	TRANSISTOR	1	
Q4003		2SC3311A	TRANSISTOR	1	
Q4004		2SA1309A	TRANSISTOR	1	(Q,R,S)
Q6006		2SB643	TRANSISTOR	1	
Q6007		2SA1512	TRANSISTOR	1	(Q,R,S)
Q6009		2SA1512	TRANSISTOR	1	(Q,R,S)
Q6016		2SD1275P	TRANSISTOR	1	
Q6017		2SD893	TRANSISTOR	1	(Q,R,S)
Q6018		2SD592	TRANSISTOR	1	
Q6019		2SD638	TRANSISTOR	1	
Q6199		2SC3311	TRANSISTOR	1	
Q7551		2SB644	TRANSISTOR	1	
Q7552		2SB644	TRANSISTOR	1	
Q7553		2SC3311	TRANSISTOR	1	
Q8001		2SC3311	TRANSISTOR	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTOR)		
QR201		UN1113	TRANSISTOR-RESISTOR	1	
QR202		UN1113	TRANSISTOR-RESISTOR	1	
QR203		UN1212	TRANSISTOR-RESISTOR	1	
QR301		UN2213	TRANSISTOR-RESISTOR	1	
QR701		UN2213	TRANSISTOR-RESISTOR	1	
QR702		UN2213	TRANSISTOR-RESISTOR	1	
QR711		UN2212	TRANSISTOR-RESISTOR	1	
QR712		UN2212	TRANSISTOR-RESISTOR	1	
QR713		UN2211	TRANSISTOR-RESISTOR	1	
QR714		UN2211	TRANSISTOR-RESISTOR	1	
QR851		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR852		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR853		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR2002		UN4212	TRANSISTOR-RESISTOR	1	
QR2003		UN4213	TRANSISTOR-RESISTOR	1	
QR3001		UN4111	TRANSISTOR-RESISTOR	1	
QR3002		UN4213	TRANSISTOR-RESISTOR	1	
QR3003		UN4212	TRANSISTOR-RESISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR3004		UN1213	TRANSISTOR-RESISTOR	1	
QR6001		UN4212	TRANSISTOR-RESISTOR	1	
QR6004		UN4213	TRANSISTOR-RESISTOR	1	
QR6005		UN1213	TRANSISTOR-RESISTOR	1	
QR6006		UN4111	TRANSISTOR-RESISTOR	1	
QR6008		UN4111	TRANSISTOR-RESISTOR	1	
QR6011		UN4212	TRANSISTOR-RESISTOR	1	
QR6012		UN4113	TRANSISTOR RESISTOR	1	
QR6013		UN4213	TRANSISTOR-RESISTOR	1	
QR6014		UN4211	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R201		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R202		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R203		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R204		ERJ6GMYJ221	CHIP 1/16W 220	1	
R205		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R206		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R207		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R208		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R209		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R210		ERJ6GMYJ274	CHIP 1/16W 270K	1	
R211		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R212		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R213		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R214		ERJ6GMYJ224	CHIP 1/16W 220K	1	
R215		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R216		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R217		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R218		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R219		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R220		ERJ6GMYJ274	CHIP 1/16W 270K	1	
R222		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R223		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R224		ERJ6GMYJ561	CHIP 1/16W 560	1	
R225		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R226		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R227		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R228		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R229		ERJ6GMYJ221	CHIP 1/16W 220	1	
R230		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R231		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R232		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R233		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R234		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R235		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R236		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R237		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R238		ERJ6GMYJ124	CHIP 1/16W 120K	1	
R239		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R240		ERJ6GMYG333	CHIP 1/16W 33K	1	
R241		ERJ6GMYJ680	CHIP 1/16W 680K	1	
R242		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R243		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R244		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R245		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R246		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R247		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R248		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R249		ERJ6GMYG472	CHIP 1/16W 4.7K	1	
R250		ERJ6GMYJ821	CHIP 1/16W 820	1	
R251		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R252		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R253		ERDS2TJ684	CARBON 1/4W 680K	1	
R256		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R257		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R258		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R259		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R260		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R261		ERJ6GMYJ183	CHIP 1/16W 18K	1	
R262		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R263		ERDS2TJ561	CARBON 1/4W 560	1	
R264		ERDS2TJ333	CARBON 1/4W 33K	1	
R265		ERDS2TJ103	CARBON 1/4W 10K	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R266		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R267		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R268		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R269		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R271		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R272		ERDS2TJ154	CARBON 1/4W 150K	1	
R273		ERDS2TJ153	CARBON 1/4W 15K	1	
R274		ERDS2TJ154	CARBON 1/4W 150K	1	
R275		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R276		ERDS2TJ273	CARBON 1/4W 27K	1	
R277		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R278		ERDS2TJ104	CARBON 1/4W 100K	1	
R279		ERDS2TJ683	CARBON 1/4W 68K	1	
R301		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R302		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R303		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R304		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R305		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R306		ERJ6GMYJ151	CHIP 1/16W 150	1	
R307		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R308		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R309		ERJ6GMYJ680	CHIP 1/16W 680K	1	
R310		ERJ6GMYJ561	CHIP 1/16W 560	1	
R312		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R313		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R314		ERJ6GMYJ471	CHIP 1/16W 470	1	
R315		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R316		ERJ6GMYJ471	CHIP 1/16W 470	1	
R317		ERJ6GMYJ471	CHIP 1/16W 470	1	
R318		ERJ6GMYJ471	CHIP 1/16W 470	1	
R319		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R320		ERJ6GMYJ560	CHIP 1/16W 56	1	
R321		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R322		ERJ6GMYJ823	CHIP 1/16W 82K	1	
R323		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R324		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R325		ERJ6GMYJ681	CHIP 1/16W 680	1	
R326		ERJ6GMYJ183	CHIP 1/16W 18K	1	
R327		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R328		ERJ6GMYJ151	CHIP 1/16W 150	1	
R329		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R350		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R351		ERJ6GMYJ823	CHIP 1/16W 82K	1	
R352		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R707		ERDS2TJ223	CARBON 1/4W 22K	1	
R712		ERJ6GEYJ682	CHIP 1/16W 6.8K	1	
R713		ERJ6GEYJ681	CHIP 1/16W 680	1	
R714		ERD2FCG330	CARBON 2W 33	1	<!>
R715		ERJ6GEYJ561	CHIP 1/16W 560	1	
R716		ERJ6GEYJ152	CHIP 1/16W 1.5K	1	
R717		ERJ6GEYJ332	CHIP 1/16W 3.3K	1	
R718		ERJ6GEYJ754	CHIP 1/16W 750K	1	
R719		ERJ6GEYJ682	CHIP 1/16W 6.8K	1	
R720		ERJ6GEYJ822	CHIP 1/16W 8.2K	1	
R721		ERJ6GEYJ332	CHIP 1/16W 3.3K	1	
R722		ERJ6GEYJ392	CHIP 1/16W 3.9K	1	
R723		ERJ6GEYJ183	CHIP 1/16W 18K	1	
R724		ERJ6GEYJ101	CHIP 1/16W 100	1	
R725		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R726		ERJ6GEYJ472	CHIP 1/16W 4.7K	1	
R727		ERDS2TJ471	CARBON 1/4W 470	1	
R728		ERDS2TJ471	CARBON 1/4W 470	1	
R729		ERJ6GEYJ331	CHIP 1/16W 330	1	
R730		ERJ6GEYJ331	CHIP 1/16W 330	1	
R737		ERJ6GEYJ274	CHIP 1/16W 270K	1	
R738		ERJ6GEYJ334	CHIP 1/16W 330K	1	
R739		ERDS2TJ681	CARBON 1/4W 680	1	
R740		ERJ6GEYJ473	CHIP 1/16W 47K	1	
R741		ERJ6GEYJ272	CHIP 1/16W 2.7K	1	
R742		ERJ6GEYJ272	CHIP 1/16W 2.7K	1	
R743		ERDS2TJ470	CARBON 1/4W 47	1	
R744		ERJ6GEYJ821	CHIP 1/16W 820	1	
R745		ERJ6GEYJ181	CHIP 1/16W 180	1	
R746		ERDS2TJ181	CARBON 1/4W 180	1	
R750		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R757		ERJ6GEYJ222	CHIP 1/16W 2.2K	1	
R759		ERDS2TJ103	CARBON 1/4W 10K	1	
R760		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R763		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R764		ERJ6GEYJ822	CHIP 1/16W 8.2K	1	
R772		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R773		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R792		ERJ6GEYJ120	CHIP 1/16W 12	1	
R801		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R802		ERJ6GMYJ101	CHIP 1/16W 100	1	
R803		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R804		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R805		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R806		ERJ6GMYJ271	CHIP 1/16W 270	1	
R807		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R808		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R809		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R810		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R811		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R812		ERJ6GMYJ471	CHIP 1/16W 470	1	
R813		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R814		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R815		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R816		ERJ6GMYJ821	CHIP 1/16W 820	1	
R817		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R818		ERJ6GMYJ273	CHIP 1/16W 27K	1	
R819		ERDS2TJ470	CARBON 1/4W 47	1	
R820		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R821		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R822		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R823		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R824		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R825		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R826		ERJ6GMYJ390	CHIP 1/16W 39	1	
R827		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R828		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R829		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R830		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R831		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R832		ERJ6GMYJ271	CHIP 1/16W 270	1	
R833		ERJ6GMYJ471	CHIP 1/16W 470	1	
R834		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R835		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R836		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R851		ERDS2TJ223	CARBON 1/4W 22K	1	
R852		ERDS2TJ390	CARBON 1/4W 39	1	
R853		ERDS2TJ154	CARBON 1/4W 150K	1	
R854		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R855		ERDS2TJ102	CARBON 1/4W 1K	1	
R856		ERDS2TJ103	CARBON 1/4W 10K	1	
R857		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R858		ERDS2TJ221	CARBON 1/4W 220	1	
R2001		ERDS2TJ560	CARBON 1/4W 56	1	
R2002		ERDS2TJ560	CARBON 1/4W 56	1	
R2003		ERDS2TJ560	CARBON 1/4W 56	1	
R2004		ERX12SJ1R0	METAL OXIDE 1/2W 1	1	
R2005		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R2006		ERJ6GMYG512	CHIP 1/16W 5.1K	1	
R2007		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R2008		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R2009		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R2010		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R2018		ERJ6GMYJ330	CHIP 1/16W 33	1	
R2029		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R2030		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R2031		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R2032		ERJ6GMYJ124	CHIP 1/16W 120K	1	
R2033		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R2034		ERJ6GMYJ391	CHIP 1/16W 390	1	
R2710		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R2711		ERDS2TJ105	CARBON 1/4W 1000K	1	
R2712		ERDS2TJ102	CARBON 1/4W 1K	1	
R2713		ERDS2TJ102	CARBON 1/4W 1K	1	
R2714		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R2715		ERDS2TJ222	CARBON 1/4W 2.2K	1	

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R2716		ERDS2TJ223	CARBON 1/4W 22K	1	
R3001		ERDS2TJ471	CARBON 1/4W 470	1	
R3002		ERJ6GMYJ750	CHIP 1/16W 75	1	
R3004		ERJ6GMYJ750	CHIP 1/16W 75	1	
R3005		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R3006		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R3008		ERJ6GMYJ561	CHIP 1/16W 560	1	
R3009		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R3019		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R3020		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R3023		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R3502		ERDS2TJ561	CARBON 1/4W 560	1	
R3503		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R3504		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R3505		ERDS2TJ392	CARBON 1/4W 3.9K	1	
R3506		ERDS2TJ102	CARBON 1/4W 1K	1	
R3507		ERDS2TJ750	CARBON 1/4W 75	1	
R3508		ERDS2TJ750	CARBON 1/4W 75	1	
R3509		ERDS2TJ333	CARBON 1/4W 33K	1	
R3510		ERDS2TJ183	CARBON 1/4W 18K	1	
R3511		ERDS2TJ750	CARBON 1/4W 75	1	
R3801		ERDS2TJ124	CARBON 1/4W 120K	1	
R3802		ERDS2TJ124	CARBON 1/4W 120K	1	
R3803		ERDS2TJ223	CARBON 1/4W 22K	1	
R3804		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R3805		ERG1ANJ820	METAL OXIDE 1W 82	1	
R3806		ERDS2TJ103	CARBON 1/4W 10K	1	
R3807		ERDS2TJ473	CARBON 1/4W 47K	1	
R3808		ERDS2TJ753	CARBON 1/4W 75K	1	
R3809		ERDS2TJ183	CARBON 1/4W 18K	1	
R3810		ERDS2TJ474	CARBON 1/4W 470K	1	
R3811		ERDS2TJ474	CARBON 1/4W 470K	1	
R3812		ERDS2TJ102	CARBON 1/4W 1K	1	
R3813		ERDS2TJ471	CARBON 1/4W 470	1	
R3814		ERDS2TJ750	CARBON 1/4W 75	1	
R4001		ERJ6GMYJ100	CHIP 1/16W 10	1	
R4003		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R4004		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R4005		ERJ6GMYJ132	CHIP 1/16W 1.3K	1	
R4006		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R4008		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R4009		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R4010		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R4011		ERJ6GMYJ334	CHIP 1/16W 330K	1	
R4012		ERJ6GMYJ331	CHIP 1/16W 330	1	
R4013		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R4015		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R4016		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R4017		ERDS2TJ223	CARBON 1/4W 22K	1	
R4018		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R4019		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R4020		ERJ6GMYJ163	CHIP 1/16W 16K	1	
R4021		ERJ6GMYJ470	CHIP 1/16W 47	1	
R4022		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R4023		ERJ6GMYJ273	CHIP 1/16W 27K	1	
R4024		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R4025		ERJ6GMYJ560	CHIP 1/16W 56	1	
R4027		ERJ6GMYJ511	CHIP 1/16W 510	1	
R4029		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R4030		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R6001		ERDS1TJ470	CARBON 1/2W 47	1	
R6006		ERD2FCVG220	CARBON 2W 22	1	<!>
R6007		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R6008		ERJ6GMYJ181	CHIP 1/16W 180	1	
R6009		ERJ6GMYJ561	CHIP 1/16W 560	1	
R6009		ERJ6GMYJ561	CHIP 1/16W 560	1	
R6010		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R6011		ERJ6GMYJ221	CHIP 1/16W 220	1	
R6016		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6017		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R6019		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R6022		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6023		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R6024		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6025		ERJ6GMYJ824	CHIP 1/16W 820K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6026		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R6027		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6028		ERJ6GMYJ184	CHIP 1/16W 180K	1	
R6029		ERJ6GMYJ561	CHIP 1/16W 560	1	
R6030		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R6031		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R6032		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R6033		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R6034		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R6035		ERJ6GMYJ101	CHIP 1/16W 100	1	
R6036		ERJ6GMYJ101	CHIP 1/16W 100	1	
R6037		ERJ6GMYJ101	CHIP 1/16W 100	1	
R6038		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R6041		ERJ6GMYJ391	CHIP 1/16W 390	1	
R6045		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6046		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R6050		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6051		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R6068		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R6069		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6070		ERJ6GMYJ471	CHIP 1/16W 470	1	
R6071		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R6072		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6073		ERJ6GMYJ271	CHIP 1/16W 270	1	
R6074		ERJ6GMYJ121	CHIP 1/16W 120	1	
R6075		ERG2SJ180	METAL OXIDE 2W 18	1	
R6079		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6080		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R6081		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6083		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R6085		ERJ6GMYJ101	CHIP 1/16W 100	1	
R6087		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6088		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6089		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R6090		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R6093		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6094		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R6095		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R6096		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R6199		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7518		ERJ6GMYJ181	CHIP 1/16W 180	1	
R7552		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R7572		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7573		ERJ6GMYJ820	CHIP 1/16W 82	1	
R7574		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R7575		ERJ6GMYJ273	CHIP 1/16W 27K	1	
R7576		ERDS2TJ390	CARBON 1/4W 39	1	
R7577		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R7578		ERDS2TJ103	CARBON 1/4W 10K	1	
R7579		ERDS2TJ103	CARBON 1/4W 10K	1	
R7596		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7651		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R7654		ERJ6GEYJ562	CHIP 1/16W 5.6K	1	
R7655		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7656		ERJ6GEYJ151	CHIP 1/16W 150	1	
R7657		ERDS2TJ104	CARBON 1/4W 100K	1	
R7658		ERDS2TJ393	CARBON 1/4W 39K	1	
R7659		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R7661		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R7662		ERDS2TJ393	CARBON 1/4W 39K	1	
R7663		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R7664		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R8001		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R8002		ERJ6GMYJ221	CHIP 1/16W 220	1	
R8003		ERJ6GMYJ821	CHIP 1/16W 820	1	
			SWITCH		
SW3501		VSS0152	SWITCH	1	
			TRANSFORMERS		
T703		EIV5EC013A	TRANSFORMER	1	
T704		EIV5EC006A	TRANSFORMER	1	
T710		EULBEF022	FILTER	1	

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
T711		EIS5EC004A	TRANSFORMER	1	
T752		EIS5EC007A	TRANSFORMER	1	
T753		EIS5EC007A	TRANSFORMER	1	
T851		ELM7Q207A	COIL	1	
T4001		EIQ7QF001B	IF TRANSFORMER	1	
			VARIABLE RESISTORS		
VR301		EVND3AA00B22	VARIABLE 200	1	
VR701		EVND4AA00B23	VARIABLE 2K	1	
VR702		EVM3AGA00B23	VARIABLE 2K	1	
VR741		EVN38CA00B14	VARIABLE 10K	1	
VR751		EVN38CA00B53	VARIABLE 5K	1	
VR801		EVND1AA00B52	VARIABLE 500	1	
VR2001		EVND3AA00B54	VARIABLE 50K	1	
VR2002		EVND3AA00B15	VARIABLE 100K	1	
VR2010		EVL51MA00B25	VARIABLE 200K	1	
VR2011		EVND3AA00B15	VARIABLE 100K	1	
VR2013		EVN38CA00B23	VARIABLE 2K	1	
VR3012		EVND3AA00B22	VARIABLE 200	1	
VR4001		EVND3AA00B14	VARIABLE 10K	1	
VR4002		EVND3AA00B25	VARIABLE 200K	1	
VR7502		EVND3AA00B14	VARIABLE 10K	1	
VR7660		EVN38CA00B23	VARIABLE 2K	1	
			CRYSTAL OSCILLATORS		
X201		VSX0066	CRYSTAL OSCILLATOR	1	
X710		EFCH38MSP1	SAW FILTER	1	
X711		EFCS5M65MW3	FILTER	1	
X712		EFCS5R5MS5	FILTER	1	
X715		EFCA6R5MB3	FILTER	1	
X717		ELB5A048	FILTER	1	
X801		VSX0162A	CRYSTAL OSCILLATOR	1	
X3501		VSX0099	CRYSTAL OSCILLATOR	1	
X6001		EFOFC3584A5	CRYSTAL OSCILLATOR	1	
X7504		EFBAA40D101	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VMC0075	HEAT SINK FIX SPRING	1	
		VSC1689	HEAT SINK	1	
		VSC1068	SHIELD CASE	1	
		VJF0004	WIRE SADLE	1	
		VWJ0271	FLAT CABLE (8P)	1	P6004-P7501
		VWJ05DW200MM	FLAT CABLE (5P)	1	P1503-P6002
		VJF0330	PURSE LOCK	1	
		VMZ0960	HEAT SINK BARRIER	1	
		VSC2048	SHIELD CASE	1	
		VJF0215	BAIND	4	
		VEJ0545	REAR JACK	1	
		VJF0236	INPUT SELECT PACK C.B.A.	2	
			SUPPORTER		
		VJH0418	RF & ANT. BOARD	1	
		VSC1788	SHIELD CASE (TOP)	1	
		VSC1789	SHIELD CASE (MAIN)	1	
		VSC1888	SHIELD CASE (BOTTOM)	1	
		TNV79461F2	TUNER	1	
		VMP1040	DEMODU. SUPPORT ANGLE	1	
	■	VEP05106B	HEAD AMP C.B.A.		
			CAPACITORS		
C501		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C502		ECUX1H820JCN	CHIP 50V 82P	1	
C503		ECUX1H181KBN	CHIP 50V 180P	1	
C504		ECUX1H330JCN	CHIP 50V 33P	1	
C505		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C506		ECUX1H473ZFN	CHIP 50V 0.047U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C507		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C509		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C510		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C511		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C512		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C513		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C514		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C515		ECUX1H102KBN	CHIP 50V 1000P	1	
C516		ECUX1H150JCN	CHIP 50V 15P	1	
C517		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C518		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C519		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C520		ECUX1H150JCN	CHIP 50V 15P	1	
C521		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C522		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C523		ECUX1H150JCN	CHIP 50V 15P	1	
C524		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C525		ECUX1H102KBN	CHIP 50V 1000P	1	
C527		ECKF1H102KB	CERAMIC 50V 1000P	1	
C528		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C529		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C530		ECUX1H473ZFN	CHIP 50V 0.047U	1	
C531		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C533		ECUX1H560JCN	CHIP 50V 56P	1	
C534		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C537		ECUX1H150JCN	CHIP 50V 15P	1	
C538		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C539		ECUX1H103ZFN	CHIP 50V 0.01U	1	
			INTEGRATED CIRCUITS		
IC501		AN3224K	IC	1	
IC502		AN3311S	IC	1	
			COILS		
L501		VLQEL05F101K	COIL 100UH	1	
L502		VLQEL05F820K	COIL 82UH	1	
L503		VLQEL05F151K	COIL 150UH	1	
L505		VLQEL05F101K	COIL 100UH	1	
L507		VLQEL05F270K	COIL 27UH	1	
			CONNECTORS		
P002		VJS1927	CONNECTOR (FEMALE)	1	
P501		VJP1248T	CONNECTOR(MALE) 8P	1	
P502		VJP1233T	CONNECTOR(MALE) 6P	1	
			TRANSISTOR		
Q501		2SB709	TRANSISTOR CHIP	1	
			RESISTORS		
R501		ERJ6GMYJ561	CHIP 1/16W 560	1	
R502		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R503		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R504		ERJ6GMYJ331	CHIP 1/16W 330	1	
R506		ERJ6GMYJ471	CHIP 1/16W 470	1	
R508		ERJ6GMYJ100	CHIP 1/16W 10	1	
R509		ERJ6GMYJ100	CHIP 1/16W 10	1	
R510		ERJ6GMYJ561	CHIP 1/16W 560	1	
R511		ERJ6GMYJ821	CHIP 1/16W 820	1	
R512		ERJ6GMYJ821	CHIP 1/16W 820	1	
R515		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R516		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R517		ERJ6GMYJ391	CHIP 1/16W 390	1	
R522		ERJ6GMYJ561	CHIP 1/16W 560	1	
R524		ERJ6GMYJ334	CHIP 1/16W 330K	1	
			VARIABLE RESISTORS		
VR501		EVND1AA00B23	VARIABLE 2K	1	
VR502		EVND1AA00B13	VARIABLE 1K	1	

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			MISCELLANEOUS		
		VSC1832	SHIELD CASE (TOP)	1	
		VSC1833	SHIELD CASE (MAIN)	1	
		VSC1834	SHIELD CASE (BOTTOM)	1	
	■	VEP06409C	OPERATION C.B.A.		
			DIODES		
D6201		LN28RCPP	LED	1	
D6202		LN38GCPPSVT	LED	1	
D6203		MA165	DIODE	1	
			CONNECTORS		
P6201		VJP1249T	CONNECTOR(MALE) 9P	1	
P6202		VJS1952	CONNECTOR (FEMALE)	1	
			RESISTORS		
R6201		ERJ6GMYJ181	CHIP 1/16W 180	1	
R6202		ERJ6GMYJ181	CHIP 1/16W 180	1	
R6203		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R6204		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R6205		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
			SWITCHES		
SW6201		EVQQS307K	SWITCH	1	
SW6202		EVQQS307K	SWITCH	1	
SW6203		ESD14314	SWITCH	1	
SW6204		ESD14314	SWITCH	1	
			VARIABLE RESISTORS		
VR2007		EVUFSAEC4B15	VARIABLE 1M	1	
VR2008		EVUFSAEC4B15	VARIABLE 1M	1	
VR3004		EVUJ16EC4B24	VARIABLE 20K	1	
			MISCELLANEOUS		
		KL-04	LED SPACER	1	D6201
		VGU3364	SLIDE SWITCH KNOB	1	
		VMD0504	LED HOLDER	1	D6202
	■	VEP07394C	TIMER C.B.A.		INCLUDING IR RECIVER
					C.B.A.(VEP06380B)
			CAPACITORS		
C6701		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6702		ECKF1H102KB	CERAMIC 50V 1000P	1	
C6703		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C6704		ECEA1HK3R3	ELECTROLYTIC 50V 3.3U	1	
C7501		ECUX1H080DCN	CHIP 50V 8P	1	
C7502		ECRHA030E41	TRIMER 30P	1	
C7503		ECEA1HKR22	ELECTROLYTIC 50V 0.22U	1	
C7504		ECUX1H220JCN	CHIP 50V 22P	1	
C7505		ECUX1H330JCN	CHIP 50V 33P	1	
C7506		ECEA0JKS101	ELECTROLYTIC 6.3V 100U	1	
C7510		ECEA1HK100	ELECTROLYTIC 50V 10U	1	
C7511		ECEA0JK221	ELECTROLYTIC 6.3V 220U	1	
C7512		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C7514		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C7515		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C7586		ECUX1H102KBN	CHIP 50V 1000P	1	
C7588		ECUX1H331KBN	CHIP 50V 330P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			DIODES		
D6701		PN323B	PHOTO DIODE	1	
D7501		11ES1	DIODE	1	
D7502		MA4075	DIODE	1	
D7503		MA165	DIODE	1	
D7520		MA165	DIODE	1	
D7525		MA165	DIODE	1	
D7529		MA165	DIODE	1	
D7533		MA165	DIODE	1	
D7534		MA165	DIODE	1	
D7535		MA165	DIODE	1	
D7536		MA165	DIODE	1	
D7537		MA165	DIODE	1	
D7538		MA165	DIODE	1	
D7539		MA165	DIODE	1	
D7540		MA165	DIODE	1	
D7541		MA165	DIODE	1	
D7542		MA165	DIODE	1	
			DISPLAY		
DP7501		VSL0101A	DISPLAY	1	
			INTEGRATED CIRCUITS		
IC6701		UPC1490HA	IC	1	
IC7501		MN15283VJU	IC	1	
IC7502		MN1220	IC	1	
IC7504		MN1280P	IC	1	
			COIL		
L7501		VLQEL05F221K	COIL 220UH	1	
			CONNECTORS		
P7501		VJS1678	CONNECTOR (FEMALE)	1	
P7502		VJS1937	CONNECTOR (FEMALE)	1	
P7506		VJP1244T	CONNECTOR(MALE) 4P	1	
P7507		VJP1243T	CONNECTOR(MALE) 3P	1	
			TRANSISTOR		
Q7501		2SD637	TRANSISTOR	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTOR)		
QR7501		UN4113	TRANSISTOR-RESISTOR	1	
QR7502		UN4213	TRANSISTOR-RESISTOR	1	
QR7503		UN4112	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R6701		ERDS2TJ154	CARBON 1/4W 150K	1	
R6702		ERDS2TJ100	CARBON 1/4W 10	1	
R7501		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R7502		ERJ6GMYJ224	CHIP 1/16W 220K	1	
R7503		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7504		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7507		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R7508		ERJ6GMYJ470	CHIP 1/16W 47	1	
R7509		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R7510		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R7511		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7527		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7528		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7529		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7530		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R7531		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R7532		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R7533		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R7534		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R7535		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R7536		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7537		ERJ6GMYJ102	CHIP 1/16W 1K	1	
			SWITCHES		
SW7501		EVQQS307K	SWITCH	1	
SW7502		EVQQS307K	SWITCH	1	
SW7503		EVQQS307K	SWITCH	1	
SW7504		EVQQS307K	SWITCH	1	
SW7505		EVQQS307K	SWITCH	1	
SW7506		EVQQS307K	SWITCH	1	
SW7507		EVQQS307K	SWITCH	1	
SW7508		EVQQS307K	SWITCH	1	
SW7510		EVQQS307K	SWITCH	1	
SW7511		EVQQS307K	SWITCH	1	
SW7512		EVQQS307K	SWITCH	1	
SW7513		EVQQS307K	SWITCH	1	
			VARIABLE RESISTOR		
VR6701		EVMLGGA00B15	VARIABLE 100K	1	
			CRYSTAL OSCILLATORS		
X7501		VSX0140A	CRYSTAL OSCILLATOR	1	
X7502		VSX0094A	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VJF0398	DISPLAY HOLDER	1	
		VKC0280	HINGE	2	
		VSC1844	IR SHIELD CASE (MAIN)	1	
		VSC1928	IR SHIELD CASE (BOTTOM)	1	
		VSC1929	IR SHIELD BOARD	1	
	■	VEP07395C	CH SELECT C.B.A.		
			CAPACITORS		
C7552		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7554		ECEA1VK220	ELECTROLYTIC 35V 22U	1	
C7555		ECQB1H273KH	MYLAR 50V 0.027U	1	
C7556		ECQV1H823JZ	MYLAR 50V 0.082U	1	
C7557		ECQV1H683JZ	MYLAR 50V 0.068U	1	
C7558		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7559		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C7560		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7561		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7563		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7564		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7565		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7566		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7569		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7575		ECEA1CK101	ELECTROLYTIC 16V 100U	1	
			DIODES		
D7551		MA165	DIODE	1	
D7558		MA165	DIODE	1	
D7559		MA165	DIODE	1	
D7560		MA165	DIODE	1	
D7561		MA165	DIODE	1	
			INTEGRATED CIRCUITS		
IC7551		AN5033	IC	1	
IC7552		AN6913	IC	1	
IC7553		MN4066B	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CONNECTORS		
P7554		VJP1230T	CONNECTOR(MALE) 3P	1	
P7555		VJP1235T	CONNECTOR(MALE) 8P	1	
P7556		VJP1233T	CONNECTOR(MALE) 6P	1	
P7557		VJP1231T	CONNECTOR(MALE) 4P	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTOR)		
QR7551		UN1213	TRANSISTOR-RESISTOR	1	
QR7556		UN1213	TRANSISTOR-RESISTOR	1	
QR7557		UN1213	TRANSISTOR-RESISTOR	1	
QR7558		UN1213	TRANSISTOR-RESISTOR	1	
QR7559		UN1213	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R7551		ERDS2TJ104	CARBON 1/4W 100K	1	
R7554		ERDS2TJ102	CARBON 1/4W 1K	1	
R7555		ERDS2TJ102	CARBON 1/4W 1K	1	
R7556		ERDS2TJ473	CARBON 1/4W 47K	1	
R7557		ERDS2TJ124	CARBON 1/4W 120K	1	
R7558		ERDS2TJ104	CARBON 1/4W 100K	1	
R7559		ERDS2TJ473	CARBON 1/4W 47K	1	
R7560		ERDS2TJ473	CARBON 1/4W 47K	1	
R7561		ERDS2TJ223	CARBON 1/4W 22K	1	
R7562		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7565		ERDS2TJ102	CARBON 1/4W 1K	1	
R7566		ERDS2TJ334	CARBON 1/4W 330K	1	
R7567		ERDS2TJ104	CARBON 1/4W 100K	1	
R7568		ERDS2TJ103	CARBON 1/4W 10K	1	
R7580		ERDS2TJ103	CARBON 1/4W 10K	1	
R7581		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R7582		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R7583		ERDS2TJ473	CARBON 1/4W 47K	1	
R7584		ERDS2TJ184	CARBON 1/4W 180K	1	
R7585		ERDS2TJ473	CARBON 1/4W 47K	1	
R7586		ERDS2TJ474	CARBON 1/4W 470K	1	
R7589		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7590		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7595		ERDS2TJ101	CARBON 1/4W 100	1	
			VARIABLE RESISTOR		
VR7502		EVND3AA00B14	VARIABLE 10K	1	
	■	VEP01264J	POWER C.B.A.		<!>
					INCLUDING THE SUB
					POWER C.B.A.
					(VEP00H48A)
			CAPACITORS		
C1001		VCK0041	250V 330P	1	<!>
C1002		VCK0041	250V 330P	1	<!>
C1003		VCK0041	250V 330P	1	<!>
C1004		VCK0041	250V 330P	1	<!>
C1005		VCK0045	250V 1500P	1	<!>
C1006		VCK0045	250V 1500P	1	<!>
C1007		VCK0045	250V 1500P	1	<!>
C1008		VCK0045	250V 1500P	1	<!>
C1009		ECQU2A104MN	MYLAR 250V 0.100U	1	<!>
C1010		ECOS2GU101F	ELECTROLYTIC 400V 100U	1	
C1011		ECQE6473MZ	MYLAR 630V 0.047U	1	
C1012		ECEA1CGE470	ELECTROLYTIC 16V 47U	1	
C1013		ECQB1H472KH	MYLAR 50V 4700P	1	
C1014		ECQV1H474JZ	MYLAR 50V 0.47U	1	
C1018		ECEA1HGE470	ELECTROLYTIC 50V 47U	1	
C1019		ECEA1EGE102	ELECTROLYTIC 25V 1000U	1	
C1020		ECEA1EGE102	ELECTROLYTIC 25V 1000U	1	
C1021		ECEA1CGE100	ELECTROLYTIC 16V 10U	1	
C1022		ECEA1HGE470	ELECTROLYTIC 50V 47U	1	

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C1023		ECEA1AGE102Z	ELECTROLYTIC 10V 1000U	1	
C1024		ECEA0JFE102X	ELECTROLYTIC 6.3V 1000U	1	
C1025		ECEA1HGE470	ELECTROLYTIC 50V 47U	1	
C1027		ECKD3D151KB	CERAMIC 2KV 150P	1	
C1030		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C1031		VCK0045	250V 1500P	1	<!>
C1032		VCK0045	250V 1500P	1	<!>
C1033		VCK0041	250V 330P	1	<!>
C1034		VCK0041	250V 330P	1	<!>
C1035		VCK0045	250V 1500P	1	<!>
C1036		VCK0045	250V 1500P	1	<!>
C1037		ECQU2A224MN	MYLAR 250V 0.22U	1	<!>
C1038		VCK0045	250V 1500P	1	<!>
C1039		ECEA1CGE470	ELECTROLYTIC 16V 47U	1	
C1040		ECQP1101JZ	MYLAR 125V 100P	1	
C1041		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C1042		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
			DIODES		
D1001		S1WBA60	DIODE	1	<!>
D1002		ERA22-08	DIODE	1	
D1003		MA178	DIODE	1	
D1004		MA178	DIODE	1	
D1005		MA178	DIODE	1	
D1007		MA185	DIODE	1	
D1008		MA185	DIODE	1	
D1010		ERC30-02L3	DIODE	1	
D1012		MA4130L	DIODE	1	
D1013		MA185	DIODE	1	
D1015		ERA82-004	DIODE	1	
D1016		AK04V2	DIODE	1	
D1019		MA165	DIODE	1	
D1024		MA178	DIODE	1	
D1025		MA178	DIODE	1	
D1026		MA4082H	DIODE	1	
D1027		ERC30-02L3	DIODE	1	
D1029		ENB461D-05A	SURGE ABSORBER 460V	1	
D1030		MA4082	DIODE	1	
			FUSES		
F1001		XBA2C16TB0	250V 1.6A	1	<!>
F1002		XBA2C25TB0	250V 2.5A	1	<!>
			INTEGRATED CIRCUIT		
IC1001		STK5338	IC	1	
			COIL		
L1001		ELF18D428	COIL	1	<!>
L1002		ELC07D220	COIL 22U	1	
			CONNECTOR		
P1001		VJS1962	CONNECTOR (FEMALE)	1	
			TRANSISTORS		
Q1001		STR10006C	TRANSISTOR	1	<!>
Q1004		2SD638	TRANSISTOR	1	(Q,R,S)
Q1011		2SB643	TRANSISTOR	1	(Q)
			RESISTORS		
R1002		ERF2AK2R2	WIRE WOUND 2W 2.2	1	<!>
R1003		ERDS2TJ474	CARBON 1/4W 470K	1	
R1004		ERDS2TJ474	CARBON 1/4W 470K	1	
R1005		ERDS2TJ474	CARBON 1/4W 470K	1	
R1006		ERDS2TJ474	CARBON 1/4W 470K	1	
R1007		ERG2ANJ683	METAL OXIDE 2W 68K	1	
R1008		ERW2PKR39	WIRE WOUND 2W 0.39	1	
R1009		ERG1SJ181	METAL OXIDE 1W 180	1	
R1012		ERQ12HJ6R8P	FUSE 1/2W 6.8	1	<!>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R1014		ERD2FCJ4R7	CARBON 2W 4.7	1	
R1015		ERQ12HJ1R0P	FUSE 1/2W 1	1	<!>
R1016		ERQ12HJ6R8P	FUSE 1/2W 6.8	1	<!>
R1017		ERG12ANJ182	METAL OXIDE 1/2W 1800	1	
R1025		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R1028		ERDS2TJ271	CARBON 1/4W 270	1	
R1029		ERC12GM334	S.RESISTOR 1/2W 330K	1	
			TRANSFORMER		
T1001		VLT0325	TRANSFORMER	1	<!>
			MISCELLANEOUS		
		VJS1972	INLET (MALE)	1	<!>
		VSC1831	SHIELD PLATE	1	
		VJF0381	FUSE HOLDER	4	<!>
	■	ENC87959	RF CONVERTER & ANTENA BOOSTER UNIT		<!>
			INTEGRATED CIRCUIT		
IC1		LA7051	IC	1	
			TRANSISTORS		
Q1		2SC2570A	TRANSISTOR	1	OR 2SC3355
Q2		2SC3130	TRANSISTOR	1	
			DIODES		
D1		MA1075	ZENER	1	
D2		HSM276S		1	
D3		MA166	DIODE	1	
			NOTE: THE OTHER PARTS FOR RF CONVERTER & ANTENA BOOSTER UNIT ARE NOT AVAILABLE AS SPARE PARTS.		
	■	VEP22066A	PROGRAMMABLE REMOTE CONTROL UNIT C.B.A		
			CAPACITORS		
C1		ECEA0GKS101	ELECTROLYTIC 4V 100U	1	
C2		ECKF1H121KB	CERAMIC 50V 120P	1	
C3		ECKF1H121KB	CERAMIC 50V 120P	1	
C4		ECQB1H222KZ	MYLAR 50V 2200P	1	
			DIODES		
D1		SE303AY	DIODE	1	
D4		MA165	DIODE	1	
D5		MA165	DIODE	1	
D6		MA165	DIODE	1	
D7		MA165	DIODE	1	
D8		MA165	DIODE	1	
D9		MA165	DIODE	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			INTEGRATED CIRCUIT		
IC1		MN6011D	IC	1	
			COMBINATION PART		
			(TRANSISTOR & RESISTORS)		
QR1		UN1231	TRANSISTOR - RESISTORS	1	
			RESISTOR		
R1		ERDS2TJ1R0	CARBON 1/4W 1.0	1	
			CRYSTAL OSCILLATOR		
X1		VSX0201	CRYSTAL OSCILLATOR	1	
	■	VEP66033C	DIGITAL SCANNER C.B.A.		
			CAPACITORS		
C01		ECEA1AKA470	ELECTROLYTIC 10V 47U	1	
C02		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C03		ECUM1E104ZFM	CHIP 25V 0.1U	1	
C04		ECUM1E104ZFM	CHIP 25V 0.1U	1	
C05		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C06		ECEA1AKA470	ELECTROLYTIC 10V 47U	1	
C07		ECUM1H330JCN	CHIP 50V 33P	1	
C08		ECUM1H330JCN	CHIP 50V 33P	1	
C09		ECUM1H103ZFN	CHIP 50V 0.01U	1	
			DIODES		
D01		MA151WK	DIODE	1	
D02		MA151WK	DIODE	1	
D03		MA151WK	DIODE	1	
D04		MA151WK	DIODE	1	
D05		MA153	DIODE	1	
D06		SE303AY	DIODE	1	
			INTEGRATED CIRCUITS		
IC01		UPD49HG89122	IC	1	
IC02		UPC324G2-T2	IC	1	
IC03		NJM78L02AA	IC	1	
			COIL		
L01		ELT3K017B	COIL	1	
			TRANSISTORS		
Q01		2SB710	TRANSISTOR CHIP	1	(Q,R,S)
Q02		2SB710	TRANSISTOR CHIP	1	(Q,R,S)
Q03		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q04		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q05		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
			RESISTORS		
R01		ERJ6GMYJ560	CHIP 1/16W 56	1	
R02		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R03		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R04		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R05		ERJ6GMYJ202	CHIP 1/16W 2K	1	
R06		ERJ6GMYJ244	CHIP 1/16W 240K	1	
R07		ERJ6GMYJ162	CHIP 1/16W 1.6K	1	
R10		ERJ8GCYK106	CHIP 1/8W 10M	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R11		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R12		ERJ8GCYK106	CHIP 1/8W 10M	1	
R13		ERJ6GMYJ361	CHIP 1/16W 360	1	
R14		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R15		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R16		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R17		ERJ8GMYJ682	CHIP 6.8K	1	
R18		ERJ8GCYJ120	CHIP 12	1	
R20		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R23		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R24		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R29		ERJ8GCYJ150	CHIP 15	1	
			SWITCHES		
SW01		VSS0126	SWITCH	1	
SW02		EVQQFV02K	SWITCH	1	
			CRYSTAL OSCILLATORS		
X01		VSX0224T	CRYSTAL OSCILLATOR	1	
X02		EFBAL30D001K	BUZZER	1	
			VARIABLE RESISTOR		
VR09		EVND4KA00B35	VARIABLE	1	
	■	VEP00K62A	CYLINDER DRIVE C.B.A		
			CAPACITORS		
C2901		ECEA1VSN2R2	ELECTROLYTIC 35V 2.2U	1	
C2902		ECEA1VSN2R2	ELECTROLYTIC 35V 2.2U	1	
C2903		ECEA1VSN2R2	ELECTROLYTIC 35V 2.2U	1	
C2904		ECUM1E104KBM	CHIP 25V 0.1U	1	
C2905		ECUM1E104KBM	CHIP 25V 0.1U	1	
C2906		ECUM1E104KBM	CHIP 25V 0.1U	1	
C2907		ECQV1H823	MYLAR 50V 0.082U	1	
C2908		ECUM1E473KBM	CHIP 25V 0.047U	1	
C2909		ECUM1E104KBM	CHIP 25V 0.1U	1	
C2910		ECEA1CKS100	ELECTROLYTIC 16V 10U	1	
C2911		ECEA1CKS100	ELECTROLYTIC 16V 10U	1	
C2912		ECEA0JKS220	ELECTROLYTIC 6.3V 22U		
			INTEGRATED CIRCUIT		
IC2901		AN3814K	IC	1	
			RESISTOR		
R2901		ERX12ANJR68	METAL OXIDE 1/4W 0.68	1	
			CONNECTORS		
P2901		VJP1232T	CONNECTOR (MALE)	1	
P2902		VJP1927	CONNECTOR (MALE)	1	
			MISCELLANEOUS		
		VSC1843	SINK HEAT	1	
		VMA6884	MAIN HOLDER	1	
	■	VEP00J52A	MECHANISM CONNECTION		
			C.B.A. CONNECTORS		

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CONNECTORS		
P1504		VJP1939	CONNECTOR (MALE) 12P	1	
P1505		VJP1242T	CONNECTOR (MALE) 2P	1	
			RESISTORS		
R1501		ERDS2TJ223	CARBON 1/4W 22K	1	
	■	VEP00H31A	REEL SENSOR C.B.A.		
			PHOTO TRANSISTOR		
			INTEGRATED CIRCUITS		
IC1501		ON2170		1	
			CONNECTOR		
P1506		VJP1242	2P	1	
	■	VXA2689	LED C.B.A. UNIT		
			DIODES		
D1501		GL450	PHOTO DIODE	1	
			MISELLANEOUS		
		VMD0911	LED HOLDER	1	
		VWJ0254	FLEXISIBLE C.B	1	
	■	VEP00H34A	TAKEUP PHOTO Tr C.B.A.		
			CAPACITORS		
C1502		ECKW1H102KBN	CERAMIC 50V 1000P	1	
			RESISTORS		
R1503		ERDS2TJ222	CARBON 1/4W 2.2K	1	
			CONNECTORS		
P1503		VJS1936		1	
P1508		VJP1242T		1	
			TRANSISTOR		
Q1502		PN150NV	PHOTO TRANSISTOR	1	
			MISCELLANEOUS		
		VMD0645	PHOTO TR HOLDER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP00H35A	SUPPLY PHOTO Tr C.B.A.		
			CAPACITOR		
C1501		ECKW1H102KBN	CERAMIC 50V 1000P	1	
			TRANSISTOR		
Q1501		PN150NV	PHOTO TRANSISTOR	1	
			MISCELLANEOUS		
		VMD0645	PHOTO TR HOLDER	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

PARTS LIST MODEL NO.: NV-H65EE

2. NV-H65EE Mechanical Replacement Parts List

Note:
1. * Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
   Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3. Unless otherwise specified,
   All resistors are in OHMS ,K-1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.
4. The P.C.Board units marked width'■'show below the main assembled parts.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP03390J	MAIN C.B.A.	1	
			(SYSTEM CONTROL, SERVO,		INCLUDING THE
			LUMINANCE&CHROMINANCE,		SERVO PACK C.B.A.
			AUDIO,CH SELECT,POWER)		(VEP02263A).SUB SERVO
					PACK C.B.A(VEP02259A)
					LUMINANCE&CHROMINANCE
					C.B.A.(VEP03381A),
					SECAM PACK C.B.A.
					(VEP03382A),
					INPUT SELECT PACK
					C.B.A.
					(VEP04173B),SUB INPUT
					SELECT PACK
					C.B.A.(VEP04174A)
					CH SELECT PACK
					(VEP07362B)
		VEP02263A	SERVO PACK C.B.A.	1	INCLUDING THE SUB
					SERVO PACK(VEP02259A)
					PART LIST IS INCLUDED
					IN MAIN C.B.A.
		VEP02259A	SUB SERVO PACK C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.
		VEP03381A	LUMINANCE & CHROMINANCE	1	INCLUDING THE SECAM
			PACK C.B.A.		PACK C.B.A(VEP03382A
					) PART LIST IS
					INCLUDED IN MAIN
					C.B.A.
		VEP03382A	SECAM PACK C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.
		VEP05097C	HEAD AMP PACK C.B.A.	1	
		VEP04179A	FM AUDIO C.B.A.	1	INCLUDING SUB FM
					AUDIO C.B.A.
					(VEP04182A)
		VEP00H59B	SUB FM AUDIO C.B.A	1	PART LIST IS
					INCLUDED IN FM AUDIO
					C.B.A.(VEP04179A)
		VEP04173B	INPUT SELECT PACK C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.
		VEP04174A	SUB INPUT SELECT PACK	1	PART LIST IS
			C.B.A.		INCLUDED IN MAIN
					C.B.A.
		VEP06382D	OPERATION C.B.A.	1	
		VEP07378C	TIMER C.B.A.	1	
		VEP00H51N	INTERFACE (DEMODU UNIT)	1	INCLUDING
			C.B.A		DEMODULATOR PACK
					C.B.A (VEP07445A),
					TUNER/ARU PACK
					C.B.A.(VEP07446A),
					DECODER PACK C.B.A
					(VEP07447A),MUTING
					C.B.A (VEP07364A)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP07445A	DEMODULATOR PACK C.B.A.	1	
		VEP07447A	DECODER PACK C.B.A.	1	
		VEP07362B	CHANNEL SELECT PACK C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.
		VEP07446A	TUNER/ARU PACK C.B.A.	1	INCLUDING THE RF
					CONVERTER UNIT
					(ENC87959),
					MUTING C.B.A.
					(VEP07364A)
		VEP07364A	MUTING C.B.A.	1	PART LIST IS
					INCLUDED IN TUNER/
					ARU PACK C.B.A.
		VEP01264D	POWER C.B.A.	1	
		VEP00H48A	SUB POWER C.B.A.	1	
		VEP00H69B	HEADPHONE C.B.A.	1	
		ENC87959	RF CONVERTER	1	<!>
		TNV79461F2	TUNER	1	<!>
		VEP06380B	IR RECEIVER C.B.A.	1	PART LIST IS
					INCLUDED IN TIMER
					C.B.A(VEP07378C)
		VEP22066A	PROGRAMMABLE REMOTE	1	
			CONTROL UNIT C.B.A.		
		VEP00K62A	CYLINDER DRIVE C.B.A.	1	
		VEP00H30A	MECHANISM CONNECTION C.B.A.	1	
		VEP00H31A	REEL SENSOR C.B.A.	1	
		VXA2689	LED C.B.A.	1	
		VEP00K27A	PHOTO TR(T) C.B.A.	1	
		VEP00H35A	PHOTO TR(S) C.B.A.	1	
	■	VEP03390J	MAIN C.B.A.		INCLUDING THE
			(SYSTEM CONTROL,SERVO,		SERVO PACK C.B.A.
			LUMINANCE & CHROMINANCE,		(VEP02263A),SUB
			AUDIO,CH SELECT,POWER)		SERVO PACK C.B.A
					(VEP02259A),
					LUMINANCE &
					CHROMINANCE PACK
					C.B.A.(VEP03381A),
					SECAM PACK C.B.A.
					(VEP03382A),
					INPUT SELECT PACK
					C.B.A.(VEP04173B),
					SUB INPUT SELECT
					PACK C.B.A.
					(VEP04174A),CH
					SELECT PACK
					C.B.A (VEP07362B)
			CAPACITORS		
C202		ECEA1HK4R7	ELECTROLYTIC 50V 4.7U	1	
C203		ECUX1H562KBN	CHIP 50V 5600P	1	
C204		ECEA1CKN100	ELECTROLYTIC 16V 10U	1	

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C205		ECUX1E223KBN	CHIP 25V 0.022P	1	
C206		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C207		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C208		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C209		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C210		ECEA0JK330	ELECTROLYTIC 6.3V 33U	1	
C212		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C213		ECQV1H683JZ	MYLAR 50V 0.068U	1	
C214		ECUX1H102KBN	CHIP 50V 1000P	1	
C215		ECEA1HKNR33	ELECTROLYTIC 50V 0.33U	1	
C216		ECEA1HK0R1	ELECTROLYTIC 50V 0.1U	1	
C217		ECEA1HKR47	ELECTROLYTIC 50V 0.47U	1	
C218		ECUX1H472KBN	CHIP 50V 4700P	1	
C219		ECQV1H334JZ	MYLAR 50V 0.33U	1	
C220		ECUX1H1032FN	CHIP 50V 0.01U	1	
C221		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C222		ECQB1H562JH	MYLAR 50V 5600P	1	
C223		ECUX1E223KBN	CHIP 25V 0.022P	1	
C224		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C225		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C226		ECUX1H103KBN	CHIP 50V 0.01U	1	
C227		ECUX1H562KBN	CHIP 50V 5600P	1	
C228		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C229		ECQV1H394JZ	MYLAR 50V 0.39U	1	
C230		ECEA1CKN100	ELECTROLYTIC 16V 10U	1	
C231		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C232		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C233		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C234		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C235		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C236		ECUX1E223KBN	CHIP 25V 0.022P	1	
C237		ECQB1H562JH	MYLAR 50V 5600P	1	
C238		ECEA0JK101	ELECTROLYTIC 6.3V 100U	1	
C239		ECEA0JK221	ELECTROLYTIC 6.3V 220U	1	
C240		ECEA16Z10	ELECTROLYTIC 16V 10U	1	
C241		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C242		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C243		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C244		ECEA1HK4R7	ELECTROLYTIC 50V 4.7U	1	
C245		ECUX1H562KBN	CHIP 50V 5600P	1	
C246		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C248		ECUX1H102KBN	CHIP 50V 1000P	1	
C249		ECUX1E223KBN	CHIP 25V 0.22U	1	
C271		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C272		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C274		ECQB1H103KH	MYLAR 50V 0.01U	1	
C301		ECUX1H271KBN	CHIP 50V 270P	1	
C302		ECEA0JU331	ELECTROLYTIC 6.3V 330U	1	
C303		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C304		ECUX1H1032FN	CHIP 50V 0.01U	1	
C305		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C306		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C307		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C309		ECUX1H560JCN	CHIP 50V 56P	1	
C310		ECUX1H820JCN	CHIP 50V 82P	1	
C311		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C312		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C313		ECUX1H100DCN	CHIP 50V 10P	1	
C314		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C315		ECEA1EKN2R2	ELECTROLYTIC 25V 2.2U	1	
C316		ECUX1H180JCN	CHIP 50V 18P	1	
C317		ECUX1H180JCN	CHIP 50V 18P	1	
C318		ECUX1H180JCN	CHIP 50V 18P	1	
C319		ECUX1H180JCN	CHIP 50V 18P	1	
C321		ECUX1H040CCN	CHIP 50V 4P	1	
C322		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C323		ECUX1H120JCN	CHIP 50V 12P	1	
C325		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C326		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C328		ECEA1HK0R1	ELECTROLYTIC 50V 0.1U	1	
C330		ECUX1H220JCN	CHIP 50V 22P	1	
C331		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C332		ECUX1H680JCN	CHIP 50V 68P	1	
C333		ECUX1H151JCN	CHIP 50V 150P	1	
C334		ECUX1H1032FN	CHIP 50V 0.01U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C335		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C336		ECUX1H470JCN	CHIP 50V 47P	1	
C337		ECUX1H100DCN	CHIP 50V 10P	1	
C801		ECUX1H391KBN	CHIP 50V 390P	1	
C802		ECQB1H223JH	MYLAR 50V 0.022U	1	
C803		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C804		ECUX1H270JCN	CHIP 50V 27P	1	
C805		ECUX1H471KBN	CHIP 50V 470P	1	
C806		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C807		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C808		ECEA10Z100	ELECTROLYTIC 10V 100U	1	
C809		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C810		ECUX1H050CCN	CHIP 50V 5P	1	
C811		ECUX1H102KBN	CHIP 50V 1000P	1	
C812		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C813		ECQV1H154JZ	MYLAR 50V 0.15U	1	
C814		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C815		ECUX1H471KBN	CHIP 50V 470P	1	
C816		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C817		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C818		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C819		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C820		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C821		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C822		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C823		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C824		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C825		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C826		ECUM1H820KBN	CHIP 50V 82P	1	
C827		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C851		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C852		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C853		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C854		ECQV1H563JZ	MYLAR 50V 0.056U	1	
C855		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C856		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C857		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C858		ECKF1H681KB	CERAMIC 50V 680P	1	
C1101		ECEA0JU470	ELECTROLYTIC 6.3V 47U	1	
C1102		ECEA0JU470	ELECTROLYTIC 6.3V 47U	1	
C1103		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C1105		ECEA1EK100	ELECTROLYTIC 25V 10U	1	
C2001		ECQB1H333JH	MYLAR 50V 0.033U	1	
C2002		ECQB1H333JH	MYLAR 50V 0.033U	1	
C2003		ECQB1H333JH	MYLAR 50V 0.033U	1	
C2004		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C2005		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C2006		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C2007		ECQB1H223JH	MYLAR 50V 0.022U	1	
C2008		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2011		ECEA1CK101	ELECTROLYTIC 16V 100U	1	
C2012		ECQB1H332KH	MYLAR 50V 3300P	1	
C2013		ECQB1H332KH	MYLAR 50V 3300P	1	
C2014		ECQB1H332KH	MYLAR 50V 3300P	1	
C2016		ECEA25Z47	ELECTROLYTIC 47U	1	
C2017		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C2018		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2019		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2020		ECQV1H474JZ	MYLAR 50V 0.47U	1	
C3001		ECEA1CU470	ELECTROLYTIC 16V 47U	1	
C3002		ECEA0JU471	ELECTROLYTIC 6.3V 470U	1	
C3004		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C3005		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3006		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C3007		ECCF1H150JC	CERAMIC 50V 15P	1	
C3008		ECCF1H220JC	CERAMIC 50V 22P	1	
C3009		ECKF1H681KB	CERAMIC 50V 680P	1	
C3010		VCKD1H151JA	CERAMIC 50V 150P	1	
C3013		ECEA1HN010SB	ELECTROLYTIC 50V 1U	1	
C3014		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C3015		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C3016		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C3017		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C3018		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C3019		ECCF1H220JC	CERAMIC 50V 22P	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3020		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C3901		ECEA1CK220	ELECTROLYTIC 16V 22U	1	
C3902		ECEA1CK220	ELECTROLYTIC 16V 22U	1	
C3903		ECEA1CK220	ELECTROLYTIC 16V 22U	1	
C3904		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C3905		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C3906		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3907		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3908		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3909		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3910		VCYD1E332MR	SEMICONDUCTOR 25V 3300P	1	
C3911		VCYD1E332MR	SEMICONDUCTOR 25V 3300P	1	
C3951		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C4003		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4004		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4005		ECEA1AK330	ELECTROLYTIC 10V 33U	1	
C4006		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4007		ECEA1CKL100	ELECTROLYTIC 16V 10U	1	
C4008		ECKF1H471KB	CERAMIC 50V 470P	1	
C4009		ECKF1H101KB	CERAMIC 50V 100P	1	
C4010		ECQB1H123JH	MYLAR 50V 0.012U	1	
C4011		ECEA1CKL100	ELECTROLYTIC 16V 10U	1	
C4012		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4013		ECEA1AK220	ELECTROLYTIC 10V 22U	1	
C4014		ECEA1AK101	ELECTROLYTIC 10V 100U	1	
C4015		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4016		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4018		ECQB1H223JH	MYLAR 50V 0.022U	1	
C4019		ECQB1H273KH	MYLAR 50V 0.027U	1	
C4020		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4021		ECKF1H102KB	CERAMIC 50V 1000P	1	
C4023		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4024		ECQP1222JZ	MYLAR 100V 2200P	1	
C4025		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C4026		ECEA16247	ELECTROLYTIC 16V 47U	1	
C4027		ECCD2H121K	CERAMIC 500V 120P	1	
C4029		ECEA1CK101	ELECTROLYTIC 16V 100U	1	
C4573		ECCR1H101JL	CERAMIC 50V 100P	1	
C4901		ECEA1CK101	ELECTROLYTIC 16V 100U	1	
C4902		ECEA1CK101	ELECTROLYTIC 16V 100U	1	
C4903		ECKF1H101KB	CERAMIC 50V 100P	1	
C4904		ECKF1H101KB	CERAMIC 50V 100P	1	
C4905		ECKF1H222KB	CERAMIC 50V 2200P	1	
C4906		ECKF1H222KB	CERAMIC 50V 2200P	1	
C4911		ECKF1H101KB	CERAMIC 50V 100P	1	
C4912		ECKF1H101KB	CERAMIC 50V 100P	1	
C4917		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4918		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4924		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C4925		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C4951		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4952		ECEA1AK101	ELECTROLYTIC 10V 100U	1	
C4953		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4954		ECEA1AK330	ELECTROLYTIC 10V 33U	1	
C4955		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4957		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4959		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4960		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4961		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4962		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4963		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4964		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4965		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C4966		ECCF1H470JC	CERAMIC 50V 47P	1	
C4967		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4968		ECQB1H222KH	MYLAR 50V 2200P	1	
C4969		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C4970		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C6001		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C6002		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C6003		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C6006		ECEA0JK330	ELECTROLYTIC 6.3V 33U	1	
C6007		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C6011		ECQB1H103KH	MYLAR 50V 0.01U	1	
C6012		ECQB1H103KH	MYLAR 50V 0.01U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C6013		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C6016		ECKF1H221KB	CERAMIC 50V 220P	1	
C6017		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6018		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6019		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6020		ECQB1H103KH	MYLAR 50V 0.01U	1	
C6021		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C6022		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C6023		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7552		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7553		ECEA1VK100	ELECTROLYTIC 35V 1U	1	
C7554		ECEA1VK220	ELECTROLYTIC 35V 22U	1	
C7555		ECQB1H273KH	MYLAR 50V 0.027U	1	
C7556		ECQV1H823JZ	MYLAR 50V 0.082U	1	
C7557		ECQV1H683JZ	MYLAR 50V 0.068U	1	
C7558		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7559		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C7560		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7561		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7563		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7564		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7565		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7566		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7569		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7570		ECEA1HN010	ELECTROLYTIC 50V 1U	1	
C7571		EECF5R5U473	GOLD 5.5V 0.047F	1	
			COMBINATION PARTS		
			(RESISTORS & CAPACITORS)		
CR3001		EXED103Z821C	C & R 0.01U 820	1	
CR4001		EXED102K472C	C & R 0.01U 15K	1	
CR4002		EXED103Z153C	C & R 0.01U 15K	1	
			DIODES		
D201		MA165	DIODE	1	
D202		MA165	DIODE	1	
D203		MA165	DIODE	1	
D204		MA165	DIODE	1	
D205		MA165	DIODE	1	
D301		MA165	DIODE	1	
D302		MA165	DIODE	1	
D303		1SS283	DIODE	1	
D304		1SS283	DIODE	1	
D801		MA165	DIODE	1	
D802		MA165	DIODE	1	
D1101		11ES2	DIODE	1	
D1102		MA165	DIODE	1	
D2007		MA165	DIODE	1	
D3001		MA165	DIODE	1	
D3002		MA165	DIODE	1	
D3003		MA165	DIODE	1	
D3901		MA165	DIODE	1	
D3951		MA165	DIODE	1	
D4001		MA165	DIODE	1	
D4002		MA165	DIODE	1	
D4003		MA165	DIODE	1	
D4951		RD6.2JB	ZENER 6.2V	1	
D4952		MA165	DIODE	1	
D4953		MA165	DIODE	1	
D4956		MA165	DIODE	1	
D4957		MA165	DIODE	1	
D6001		ERA15-01	DIODE	1	
D6004		MA165	DIODE	1	
D6005		MA165	DIODE	1	
D6009		MA165	DIODE	1	
D6010		MA165	DIODE	1	
D6011		MA165	DIODE	1	
D6012		MA165	DIODE	1	
D6017		ERA15-01	DIODE	1	
D6018		MA4056M	DIODE	1	
D6019		MA4140M	DIODE	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D6020		MA4110M	DIODE	1	
D6021		MA165	DIODE	1	
D6022		MA165	DIODE	1	
D6023		MA165	DIODE	1	
D6024		MA165	DIODE	1	
D6028		MA165	DIODE	1	
D6029		MA165	DIODE	1	
D7550		MA165	DIODE	1	
D7551		MA165	DIODE	1	
D7554		LN28WPVT	LED	1	
D7555		MA27WB	DIODE	1	
D7558		MA165	DIODE	1	
D7559		MA165	DIODE	1	
D7560		MA165	DIODE	1	
			DELAY LINE		
DL301		EFDEN645A51F	DELAY LINE	1	
DL801		EFDHR124A13A	DELAY LINE	1	
			FILTERS		
FL301		ELB4M022	FILTER	1	
FL303		VLF0499	FILTER	1	
FL801		VLF0299	FILTER	1	
FL851		VLF0143	FILTER	1	
FL3901		ELB4H020	FILTER	1	
FL4001		VLF0332	FILTER	1	
			INTEGRATED CIRCUITS		
IC201		UPD6160CA603	IC	1	
IC202		UPD6161CA602	IC	1	
IC203		AN6562	IC	1	
IC301		VEFY017	FIC	1	
IC801		VEFC013	FIC	1	
IC851		BA7025L	IC	1	
IC2001		BA6430S	IC	1	
IC3901		TA7348P	IC	1	
IC3902		BA7004	IC	1	
IC3951		UPD4001BC	IC	1	
IC4001		BA7752LS	IC	1	
IC4951		UPD4052BC	IC	1	
IC4952		AN6558	IC	1	
IC4953		UPC4558C	IC	1	
IC4954		M5201L	IC	1	
IC6001		MN15362VJR	IC	1	
IC6002		AN6914	IC	1	
IC6003		UPD4510BC	IC	1	
IC6004		MN1280	IC	1	
IC7551		AN5033	IC	1	
IC7552		AN6913	IC	1	
IC7553		UPD4066BC	IC	1	
			COILS		
L301		VLQEL05F180K	COIL 18UH	1	
L302		VLQEL05F180K	COIL 18UH	1	
L303		VLQEL05F101K	COIL 100UH	1	
L304		VLQEL05F101K	COIL 100UH	1	
L305		VLQEL05F101K	COIL 100UH	1	
L306		VLQEL05F820K	COIL 82UH	1	
L307		VLQEL05F101K	COIL 100UH	1	
L310		VLQEL05F101K	COIL 100UH	1	
L311		VLQEL05F270K	COIL 27UH	1	
L801		VLQEL05F150K	COIL 15UH	1	
L802		VLQEL05F470K	COIL 47UH	1	
L803		VLQEL05F270K	COIL 27UH	1	
L804		VLQEL05F151K	COIL 150UH	1	
L805		VLQEL05F101K	COIL 100UH	1	
L806		VLQEL05F470K	COIL 47UH	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L807		VLQEL05F331K	COIL 330UH	1	
L808		VLQEL05F681K	COIL 680UH	1	
L809		VLQEL05F681K	COIL 680UH	1	
L810		VLQEL05F101K	COIL 100UH	1	
L851		VLQEL05F101K	COIL 100UH	1	
L2001		VLQEL05F102K	COIL 1000UH	1	
L3001		VLQEL05F101K	COIL 100UH	1	
L3002		VLQEL05F101K	COIL 100UH	1	
L3003		VLQEL05F120K	COIL 12UH	1	
L3004		VLQEL05F101K	COIL 100UH	1	
L3005		VLQEL05F6R8K	COIL 6.8UH	1	
L3901		VLQEL05F101K	COIL 100UH	1	
L3902		VLQEL05F101K	COIL 100UH	1	
L4001		VLQEL07F822J	COIL 8200UH	1	
L4002		VLQEL05F101K	COIL 100UH	1	
L4905		VLQEL05F101K	COIL 100UH	1	
L4906		VLQEL05F101K	COIL 100UH	1	
L7551		VLQEL05F102K	COIL 1000UH	1	
			CONNECTORS		
P501		VJS1235T	CONNECTOR(FEMALE)	1	
P502		VJS1236T	CONNECTOR(FEMALE)	1	
P1504		VJS1239T	CONNECTOR(FEMALE)	1	
P1504		VJP1932T	CONNECTOR(MALE)	1	
P2901		VJS1232T	CONNECTOR(FEMALE)	1	
P4001		VJP1233T	CONNECTOR(MALE) 6P	1	
P4003		VJS1446	CONNECTOR(FEMALE)	1	
P4004		VJP1141	CONNECTOR(MALE) 2P	1	
P4502		VJS1231T	CONNECTOR(FEMALE)	1	
P6002		VJS1935	CONNECTOR(FEMALE)	1	
P6003		VJP1393T	CONNECTOR(MALE) 13P	1	
P7301		VJP1231T	CONNECTOR(MALE) 4P	1	
P7302		VJS1961	CONNECTOR(FEMALE)	1	
P7303		VJP1239T	CONNECTOR(MALE) 12P	1	
P7404		VJS1475	CONNECTOR(FEMALE)	1	
P7503		VJS1239T	CONNECTOR(FEMALE)	1	
P7504		VJS1234R	CONNECTOR(FEMALE)	1	
P7505		VJS1234T	CONNECTOR(FEMALE)	1	
P7801		VJS1234T	CONNECTOR(FEMALE)	1	
			TRANSISTORS		
Q201		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q202		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q204		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q205		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q206		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q208		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
Q271		2SD636	TRANSISTOR	1	
Q272		2SD636	TRANSISTOR	1	
Q273		2SD636	TRANSISTOR	1	
Q274		2SD636	TRANSISTOR	1	
Q301		2SD601	TRANSISTOR CHIP	1	
Q302		2SB709	TRANSISTOR CHIP	1	
Q303		2SB709	TRANSISTOR CHIP	1	
Q304		2SD601	TRANSISTOR CHIP	1	
Q305		2SB709	TRANSISTOR CHIP	1	
Q306		2SD601	TRANSISTOR CHIP	1	
Q307		2SC2295	TRANSISTOR	1	
Q308		2SB709	TRANSISTOR CHIP	1	
Q801		2SC2295	TRANSISTOR	1	
Q802		2SD601	TRANSISTOR CHIP	1	
Q803		2SD601	TRANSISTOR CHIP	1	
Q804		2SC2295	TRANSISTOR	1	
Q805		2SD601	TRANSISTOR CHIP	1	
Q806		2SC2295	TRANSISTOR	1	
Q851		2SC2206	TRANSISTOR	1	
Q1101		2SC1384	TRANSISTOR	1	(S)
Q2001		2SB641	TRANSISTOR	1	
Q2002		2SD636	TRANSISTOR	1	
Q3001		2SB641	TRANSISTOR	1	(Q,R,S)
Q3003		2SD636	TRANSISTOR	1	(Q,R,S)

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q3004		2SC2206	TRANSISTOR	1	(A,B,C)
Q3005		2SD636	TRANSISTOR	1	(Q,R,S)
Q3050		2SD636	TRANSISTOR	1	
Q3901		2SC2206	TRANSISTOR	1	
Q3951		2SB641	TRANSISTOR	1	(Q,R,S)
Q4001		2SD639	TRANSISTOR	1	(R)
Q4002		2SD637	TRANSISTOR	1	
Q4003		2SD637	TRANSISTOR	1	
Q4004		2SB642	TRANSISTOR	1	
Q4005		2SD636	TRANSISTOR	1	
Q4006		2SD636	TRANSISTOR	1	
Q4007		2SB643	TRANSISTOR	1	
Q4901		2SD1330	TRANSISTOR	1	
Q4951		2SD636	TRANSISTOR	1	(Q,R,S)
Q6007		2SB790	TRANSISTOR	1	(Q,R,S)
Q6009		2SB790	TRANSISTOR	1	(Q,R,S)
Q6015		2SD638	TRANSISTOR	1	(R,S)
Q6016		2SD1275	TRANSISTOR	1	
Q6017		2SD893	TRANSISTOR	1	(Q,R,S)
Q6018		2SD973	TRANSISTOR	1	(Q,R,S)
Q6019		2SD638	TRANSISTOR	1	(Q,R,S)
Q7551		2SB644	TRANSISTOR	1	(Q,R,S)
Q7552		2SB644	TRANSISTOR	1	(Q,R,S)
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR201		UN2113	TRANSISTOR-RESISTOR	1	
QR202		UN2113	TRANSISTOR-RESISTOR	1	
QR301		UN2213	TRANSISTOR-RESISTOR	1	
QR851		DTC144EA	TRANSISTOR RESISTOR	1	
QR852		DTC144EA	TRANSISTOR RESISTOR	1	
QR853		DTC144EA	TRANSISTOR RESISTOR	1	
QR1101		UN1213	TRANSISTOR-RESISTOR	1	
QR2002		UN1212	TRANSISTOR-RESISTOR	1	
QR2007		UN1213	TRANSISTOR-RESISTOR	1	
QR3001		UN1111	TRANSISTOR-RESISTOR	1	
QR3002		UN1212	TRANSISTOR-RESISTOR	1	
QR3003		UN1113	TRANSISTOR-RESISTOR	1	
QR3004		UN1214	TRANSISTOR-RESISTOR	1	
QR3005		UN1212	TRANSISTOR-RESISTOR	1	
QR3006		UN1213	TRANSISTOR-RESISTOR	1	
QR4001		UN1213	TRANSISTOR-RESISTOR	1	
QR4003		UN1113	TRANSISTOR-RESISTOR	1	
QR6001		UN1212	TRANSISTOR-RESISTOR	1	
QR6004		UN1213	TRANSISTOR-RESISTOR	1	
QR6005		UN1213	TRANSISTOR-RESISTOR	1	
QR6006		UN1111	TRANSISTOR-RESISTOR	1	
QR6008		UN1111	TRANSISTOR-RESISTOR	1	
QR6011		UN1212	TRANSISTOR-RESISTOR	1	
QR6012		UN1113	TRANSISTOR-RESISTOR	1	
QR6013		UN1213	TRANSISTOR-RESISTOR	1	
QR7551		UN1213	TRANSISTOR-RESISTOR	1	
QR7556		UN1213	TRANSISTOR-RESISTOR	1	
QR7557		UN1213	TRANSISTOR-RESISTOR	1	
QR7558		UN1213	TRANSISTOR-RESISTOR	1	
QR7559		UN1213	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R201		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R202		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R203		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R204		ERJ6GMYJ221	CHIP 1/16W 220	1	
R205		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R206		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R207		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R208		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R209		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R210		ERJ6GMYJ274	CHIP 1/16W 27K	1	
R211		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R212		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R213		ERJ6GMYJ154	CHIP 1/16W 150K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R214		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R215		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R216		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R217		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R218		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R219		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R222		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R223		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R224		ERJ6GMYJ561	CHIP 1/16W 560	1	
R225		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R226		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R227		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R228		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R229		ERJ6GMYJ221	CHIP 1/16W 220	1	
R230		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R231		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R232		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R233		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R234		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R235		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R236		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R237		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R238		ERJ6GMYJ124	CHIP 1/16W 120K	1	
R239		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R240		ERJ6GMYG333	CHIP 1/16W 33K	1	
R241		ERJ6GMYJ684	CHIP 1/16W 68K	1	
R242		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R243		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R244		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R245		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R246		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R247		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R248		ERJ6GMYG363	CHIP 1/16W 36K	1	
R250		ERJ6GMYJ821	CHIP 1/16W 820	1	
R253		ERDS2TJ684	CARBON 1/4W 680K	1	
R257		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R258		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R259		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R260		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R261		ERJ6GMYJ183	CHIP 1/16W 18K	1	
R263		ERJ6GMYJ274	CHIP 1/16W 27K	1	
R271		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R272		ERDS2TJ154	CARBON 1/4W 150K	1	
R273		ERDS2TJ153	CARBON 1/4W 15K	1	
R274		ERDS2TJ154	CARBON 1/4W 150K	1	
R275		ERDS2TJ102	CARBON 1/4W 1K	1	
R276		ERDS2TJ273	CARBON 1/4W 27K	1	
R277		ERDS2TJ681	CARBON 1/4W 680	1	
R278		ERDS2TJ104	CARBON 1/4W 100K	1	
R279		ERDS2TJ683	CARBON 1/4W 68K	1	
R301		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R302		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R303		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R304		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R305		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R306		ERJ6GMYJ151	CHIP 1/16W 150	1	
R307		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R308		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R309		ERJ6GMYJ684	CHIP 1/16W 68K	1	
R310		ERJ6GMYJ561	CHIP 1/16W 560	1	
R312		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R313		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R314		ERJ6GMYJ471	CHIP 1/16W 470	1	
R315		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R316		ERJ6GMYJ471	CHIP 1/16W 470	1	
R317		ERJ6GMYJ471	CHIP 1/16W 470	1	
R318		ERJ6GMYJ471	CHIP 1/16W 470	1	
R319		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R320		ERJ6GMYJ560	CHIP 1/16W 56	1	
R321		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R322		ERJ6GMYJ823	CHIP 1/16W 82K	1	
R323		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R324		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R325		ERJ6GMYJ681	CHIP 1/16W 680	1	
R326		ERJ6GMYJ183	CHIP 1/16W 18K	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R327		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R328		ERJ6GMYJ151	CHIP 1/16W 150	1	
R329		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R350		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R351		ERJ6GMYJ823	CHIP 1/16W 82K	1	
R352		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R801		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R802		ERJ6GMYJ101	CHIP 1/16W 100	1	
R803		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R804		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R805		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R806		ERJ6GMYJ271	CHIP 1/16W 270	1	
R807		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R808		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R809		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R810		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R811		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R812		ERJ6GMYJ471	CHIP 1/16W 470	1	
R813		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R814		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R815		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R816		ERJ6GMYJ821	CHIP 1/16W 820	1	
R817		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R818		ERJ6GMYJ273	CHIP 1/16W 27K	1	
R819		ERDS2TJ470	CARBON 1/4W 47	1	
R820		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R821		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R822		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R823		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R824		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R825		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R826		ERJ6GMYJ390	CHIP 1/16W 39	1	
R827		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R828		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R829		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R830		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R831		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R832		ERJ6GMYJ271	CHIP 1/16W 270	1	
R833		ERJ6GMYJ471	CHIP 1/16W 470	1	
R834		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R835		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R836		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R851		ERDS2TJ223	CARBON 1/4W 22K	1	
R852		ERDS2TJ390	CARBON 1/4W 39	1	
R853		ERDS2TJ154	CARBON 1/4W 150K	1	
R854		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R855		ERDS2TJ102	CARBON 1/4W 1K	1	
R856		ERDS2TJ103	CARBON 1/4W 10K	1	
R857		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R858		ERDS2TJ221	CARBON 1/4W 220	1	
R1101		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R1104		ERDS2TOT		1	
R2001		ERDS2TJ330	CARBON 1/4W 33	1	
R2002		ERDS2TJ330	CARBON 1/4W 33	1	
R2003		ERDS2TJ330	CARBON 1/4W 33	1	
R2004		ERX12SJ1R0	METAL OXIDE 1/2W 1	1	
R2005		ERDS2TJ102	CARBON 1/4W 1K	1	
R2006		EROS2CKG5601	METAL OXIDE 1/4W 5.6K	1	
R2007		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R2008		EROS2CKG6801	METAL OXIDE 1/4W 6.8K	1	
R2009		EROS2CKG5101	METAL OXIDE 1/4W 5.1K	1	
R2010		ERDS2TJ223	CARBON 1/4W 22K	1	
R2018		ERDS2TJ330	CARBON 1/4W 33	1	
R2029		ERDS2TJ683	CARBON 1/4W 68K	1	
R2030		ERDS2TJ333	CARBON 1/4W 33K	1	
R2031		ERDS2TJ473	CARBON 1/4W 47K	1	
R2032		ERDS2TJ124	CARBON 1/4W 120K	1	
R2033		ERDS2TJ683	CARBON 1/4W 68K	1	
R2034		ERDS2TJ391	CARBON 1/4W 390	1	
R2036		ERDS2TJ103	CARBON 1/4W 10K	1	
R3001		ERDS2TJ471	CARBON 1/4W 470	1	
R3004		ERDS2TJ103	CARBON 1/4W 10K	1	
R3005		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R3006		ERDS2TJ561	CARBON 1/4W 560	1	
R3008		ERDS2TJ102	CARBON 1/4W 1K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3010		ERDS2TJ103	CARBON 1/4W 10K	1	
R3011		ERDS2TJ102	CARBON 1/4W 1K	1	
R3012		ERDS2TJ221	CARBON 1/4W 220	1	
R3013		ERDS2TJ223	CARBON 1/4W 22K	1	
R3050		ERDS2TJ473	CARBON 1/4W 47K	1	
R3901		ERDS2TJ750	CARBON 1/4W 75	1	
R3902		ERDS2TJ750	CARBON 1/4W 75	1	
R3903		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R3904		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R3905		ERDS2TJ104	CARBON 1/4W 100K	1	
R3906		ERDS2TJ750	CARBON 1/4W 75	1	
R3907		ERDS2TJ750	CARBON 1/4W 75	1	
R3909		ERDS2TJ750	CARBON 1/4W 75	1	
R3910		ERDS2TJ750	CARBON 1/4W 75	1	
R3911		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R3912		ERDS2TJ392	CARBON 1/4W 3.9K	1	
R3913		ERDS2TJ102	CARBON 1/4W 1K	1	
R3914		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R3915		ERDS2TJ561	CARBON 1/4W 560	1	
R3951		ERDS2TJ750	CARBON 1/4W 75	1	
R3952		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R3953		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R3954		ERDS2TJ684	CARBON 1/4W 680K	1	
R3955		ERDS2TJ684	CARBON 1/4W 680K	1	
R4001		ERDS2TJ100	CARBON 1/4W 10	1	
R4002		ERDS2TJ103	CARBON 1/4W 10K	1	
R4004		ERDS2TJ563	CARBON 1/4W 56K	1	
R4005		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R4006		ERDS2TJ123	CARBON 1/4W 12K	1	
R4008		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R4009		ERDS2TJ683	CARBON 1/4W 68K	1	
R4010		ERDS2TJ683	CARBON 1/4W 68K	1	
R4011		ERDS2TJ334	CARBON 1/4W 330K	1	
R4012		ERDS2TJ331	CARBON 1/4W 330	1	
R4013		ERDS2TJ103	CARBON 1/4W 10K	1	
R4015		ERDS2TJ105	CARBON 1/4W 1000K	1	
R4016		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R4017		ERDS2TJ223	CARBON 1/4W 22K	1	
R4018		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R4019		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R4020		EROS2CKG1602	METAL OXIDE 1/4W 16K	1	
R4021		ERDS2TJ103	CARBON 1/4W 10K	1	
R4022		ERDS2TJ123	CARBON 1/4W 12K	1	
R4023		ERDS2TJ333	CARBON 1/4W 33K	1	
R4024		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R4025		ERDS2TJ560	CARBON 1/4W 56	1	
R4026		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R4027		ERDS2TJ561	CARBON 1/4W 560	1	
R4029		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R4030		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4031		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R4032		ERDS2TJ470	CARBON 1/4W 47	1	
R4033		ERDS2TJ104	CARBON 1/4W 100K	1	
R4901		ERDS2TJ102	CARBON 1/4W 1K	1	
R4902		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4903		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4904		ERDS2TJ101	CARBON 1/4W 100	1	
R4905		ERDS2TJ101	CARBON 1/4W 100	1	
R4906		ERDS2TJ471	CARBON 1/4W 470	1	
R4907		ERDS2TJ471	CARBON 1/4W 470	1	
R4910		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4911		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4912		ERDS2TJ221	CARBON 1/4W 220	1	
R4913		ERDS2TJ221	CARBON 1/4W 220	1	
R4914		ERDS2TJ471	CARBON 1/4W 470	1	
R4915		ERDS2TJ471	CARBON 1/4W 470	1	
R4918		ERDS2TJ224	CARBON 1/4W 220K	1	
R4919		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R4920		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R4922		EROS2CKG2201	METAL OXIDE 1/4W 2.2K	1	
R4923		EROS2CKG2201	METAL OXIDE 1/4W 2.2K	1	
R4951		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R4952		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R4953		ERDS2TJ153	CARBON 1/4W 15K	1	
R4954		ERDS2TJ473	CARBON 1/4W 47K	1	

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4955		ERDS2TJ473	CARBON 1/4W 47K	1	
R4956		ERDS2TJ473	CARBON 1/4W 47K	1	
R4957		ERDS2TJ473	CARBON 1/4W 47K	1	
R4958		EROS2CKG4701	METAL OXIDE 1/4W 4.7K	1	
R4959		EROS2CKG2702	METAL OXIDE 1/4W 27K	1	
R4960		ERDS2TJ683	CARBON 1/4W 68K	1	
R4961		ERDS2TJ153	CARBON 1/4W 15K	1	
R4962		ERDS2TJ153	CARBON 1/4W 15K	1	
R4963		ERDS2TJ153	CARBON 1/4W 15K	1	
R4964		ERDS2TJ153	CARBON 1/4W 15K	1	
R4965		ERDS2TJ153	CARBON 1/4W 15K	1	
R4966		ERDS2TJ474	CARBON 1/4W 470K	1	
R4967		ERDS2TJ474	CARBON 1/4W 470K	1	
R4968		ERDS2TJ683	CARBON 1/4W 68K	1	
R4969		ERDS2TJ474	CARBON 1/4W 470K	1	
R4970		ERDS2TJ474	CARBON 1/4W 470K	1	
R4971		ERDS2TJ684	CARBON 1/4W 680K	1	
R4972		ERDS2TJ684	CARBON 1/4W 680K	1	
R4973		ERDS2TJ124	CARBON 1/4W 120K	1	
R4974		EROS2CKG3902	METAL OXIDE 1/4W 39K	1	
R4975		ERDS2TJ474	CARBON 1/4W 470K	1	
R4976		EROS2CKG3902	METAL OXIDE 1/4W 39K	1	
R4977		ERDS2TJ123	CARBON 1/4W 12K	1	
R4978		ERDS2TJ474	CARBON 1/4W 470K	1	
R4979		ERDS2TJ473	CARBON 1/4W 47K	1	
R4980		ERDS2TJ473	CARBON 1/4W 47K	1	
R4981		ERDS2TJ123	CARBON 1/4W 12K	1	
R4982		ERDS2TJ473	CARBON 1/4W 47K	1	
R4983		ERDS2TJ123	CARBON 1/4W 12K	1	
R4984		ERDS2TJ473	CARBON 1/4W 47K	1	
R4985		ERDS2TJ474	CARBON 1/4W 470K	1	
R4986		ERDS2TJ474	CARBON 1/4W 470K	1	
R4987		ERDS2TJ124	CARBON 1/4W 120K	1	
R4988		ERDS2TJ104	CARBON 1/4W 100K	1	
R4989		ERDS2TJ124	CARBON 1/4W 120K	1	
R4990		ERDS2TJ473	CARBON 1/4W 47K	1	
R4991		ERDS2TJ473	CARBON 1/4W 47K	1	
R4992		ERDS2TJ473	CARBON 1/4W 47K	1	
R4993		ERDS2TJ473	CARBON 1/4W 47K	1	
R4994		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R4995		ERDS2TJ393	CARBON 1/4W 39K	1	
R4996		ERDS2TJ123	CARBON 1/4W 12K	1	
R6001		ERDS1TJ470	CARBON 1/2W 47	1	
R6002		ERDS2TJ473	CARBON 1/4W 47K	1	
R6005		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R6006		ERD2FCG220P	CARBON 2W 22	1	<!>
R6007		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R6008		ERDS2TJ181	CARBON 1/4W 180	1	
R6009		ERDS2TJ561	CARBON 1/4W 560	1	
R6010		ERDS2TJ102	CARBON 1/4W 1K	1	
R6011		ERDS2TJ221	CARBON 1/4W 220	1	
R6016		ERDS2TJ223	CARBON 1/4W 22K	1	
R6017		ERDS2TJ223	CARBON 1/4W 22K	1	
R6018		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R6019		ERDS2TJ153	CARBON 1/4W 15K	1	
R6020		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R6022		ERDS2TJ223	CARBON 1/4W 22K	1	
R6023		ERDS2TJ683	CARBON 1/4W 68K	1	
R6024		ERDS2TJ223	CARBON 1/4W 22K	1	
R6025		ERDS2TJ824	CARBON 1/4W 820K	1	
R6026		ERDS2TJ105	CARBON 1/4W 1000K	1	
R6027		ERDS2TJ223	CARBON 1/4W 22K	1	
R6028		ERDS2TJ184	CARBON 1/4W 180K	1	
R6029		ERDS2TJ561	CARBON 1/4W 560	1	
R6030		ERDS2TJ153	CARBON 1/4W 15K	1	
R6031		ERDS2TJ153	CARBON 1/4W 15K	1	
R6032		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R6033		ERDS2TJ333	CARBON 1/4W 33K	1	
R6034		ERDS2TJ333	CARBON 1/4W 33K	1	
R6035		ERDS2TJ101	CARBON 1/4W 100	1	
R6036		ERDS2TJ101	CARBON 1/4W 100	1	
R6037		ERDS2TJ101	CARBON 1/4W 100	1	
R6038		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R6041		ERDS2TJ391	CARBON 1/4W 390	1	
R6042		ERDS2TJ332	CARBON 1/4W 3.3K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6045		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R6046		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R6047		ERDS2TJ681	CARBON 1/4W 680	1	
R6050		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R6051		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R6067		ERDS2TJ101	CARBON 1/4W 100	1	
R6068		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R6069		ERDS2TJ103	CARBON 1/4W 10K	1	
R6070		ERDS2TJ471	CARBON 1/4W 470	1	
R6071		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R6072		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R6073		ERDS2TJ391	CARBON 1/4W 390	1	
R6074		ERDS2TJ561	CARBON 1/4W 560	1	
R6075		ERG2SJ180P	METAL OXIDE 2W 18	1	
R6076		ERDS2TJ181	CARBON 1/4W 180	1	
R6079		ERDS2TJ103	CARBON 1/4W 10K	1	
R6080		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R6081		ERDS2TJ103	CARBON 1/4W 10K	1	
R6083		ERDS2TJ104	CARBON 1/4W 100K	1	
R6084		ERDS2TJ561	CARBON 1/4W 560	1	
R6085		ERDS2TJ561	CARBON 1/4W 560	1	
R6086		ERDS2TJ103	CARBON 1/4W 10K	1	
R7551		ERDS2TJ104	CARBON 1/4W 100K	1	
R7554		ERDS2TJ102	CARBON 1/4W 1K	1	
R7555		ERDS2TJ102	CARBON 1/4W 1K	1	
R7556		ERDS2TJ473	CARBON 1/4W 47K	1	
R7557		ERDS2TJ124	CARBON 1/4W 120K	1	
R7558		ERDS2TJ104	CARBON 1/4W 100K	1	
R7559		ERDS2TJ473	CARBON 1/4W 47K	1	
R7560		ERDS2TJ473	CARBON 1/4W 47K	1	
R7561		ERDS2TJ223	CARBON 1/4W 22K	1	
R7562		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7565		ERDS2TJ102	CARBON 1/4W 1K	1	
R7566		ERDS2TJ334	CARBON 1/4W 330K	1	
R7567		ERDS2TJ104	CARBON 1/4W 100K	1	
R7568		ERDS2TJ103	CARBON 1/4W 10K	1	
R7572		ERDS2TJ473	CARBON 1/4W 47K	1	
R7573		ERDS2TJ820	CARBON 1/4W 82	1	
R7574		ERDS2TJ333	CARBON 1/4W 33K	1	
R7575		ERDS2TJ273	CARBON 1/4W 27K	1	
R7576		ERDS2TJ390	CARBON 1/4W 39	1	
R7580		ERDS2TJ103	CARBON 1/4W 10K	1	
R7580		ERDS2TJ123	CARBON 1/4W 120K	1	
R7581		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R7582		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R7583		ERDS2TJ473	CARBON 1/4W 47K	1	
R7584		ERDS2TJ393	CARBON 1/4W 39K	1	
R7584		ERDS2TJ333	CARBON 1/4W 330K	1	
R7585		ERDS2TJ473	CARBON 1/4W 47K	1	
R7586		ERDS2TJ563	CARBON 1/4W 56K	1	
R7589		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7590		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7591		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7592		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7595		ERDS2TJ181	CARBON 1/4W 180	1	
			SWITCHES		
S3901		VSS0162	SWITCH	1	
			TRANSFORMER		
T851		ELM7Q207A	COIL	1	
T4001		EIQ7QF001B	IF TRANSFORMER	1	
			VARIABLE RESISTORS		
VR301		EVND3AA00B22	VARIABLE 200	1	
VR801		EVND1AA00B52	VARIABLE 500	1	
VR2001		EVND3AA00B54	VARIABLE 50K	1	
VR2002		EVND3AA00B15	VARIABLE 100K	1	
VR2010		EVL51MA00B25	VARIABLE 200K	1	

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
VR2011		EVND3AA00B15	VARIABLE 100K	1	
VR3012		EVND3AA00B22	VARIABLE 200	1	
VR4001		EVND3AA00B14	VARIABLE 10K	1	
VR4002		EVND3AA00B25	VARIABLE 200K	1	
VR4004		EVND3AA00B53	VARIABLE 5K	1	
VR4005		EVND3AA00B53	VARIABLE 5K	1	
VR4510		EVN38CA00B15	VARIABLE 100K	1	
VR7502		EVN32CA00B14	VARIABLE 10K	1	
			CRYSTAL OSCILLATORS		
X801		VSX0129A	CRYSTAL OSCILLATOR	1	
X3901		VSX0099	CRYSTAL OSCILLATOR	1	
X6001		EF0FC3584A5	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VWJ0264	FLAT CABLE (13P)	1	P7502-P6201
		VWJ14CN120BC	FLAT CABLE (14P)	1	J1101-P1001
		VWJ15CN070BC	FLAT CABLE	1	
		VWJ0265	FLAT CABLE (5P)	1	P6002-P1503
		VWJ28AW150MM	FLAT CABLE (28P)	1	P4501-P4003
		VMC0075	HEAT SINK FIX SPRING	1	
		VSC1068	HEAT SINK	1	
		VSC1689	HEAT SINK	1	
		VSC1446	HEAT SINK	1	
		VJF0236	INPUT SELECT PACK C.B	1	
			SUPPORTER		
		VMX0985	C.B SPACER	1	
		VEJ0571	INPUT/OUTPUT JACK	1	
		VGU2707	COLOUR/TEST/AUTO SELECTOR	1	
		VKH0105	HOOK	1	
		VMZ0960	HEAT SINK BARRIER	1	
	■	VEP05097C	HEAD AMP PACK C.B.A.		
			CAPACITORS		
C501		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C502		ECUX1H560JCN	CHIP 50V 56P	1	
C503		ECUX1H331KBN	CHIP 50V 330P	1	
C504		ECUX1H560JCN	CHIP 50V 56P	1	
C505		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C506		ECUM1E473FN	CHIP 25V 0.047U	1	
C507		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C508		ECUX1H151JCN	CHIP 50V 150P	1	
C509		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C510		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C511		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C512		ECUX1H390JCN	CHIP 50V 39P	1	
C513		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C514		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C515		ECUX1H102KBN	CHIP 50V 1000P	1	
C516		ECUX1H560JCN	CHIP 50V 56P	1	
C517		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C518		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C519		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C520		ECUX1H220JCN	CHIP 50V 22P	1	
C521		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C522		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C523		ECUX1H220JCN	CHIP 50V 22P	1	
C524		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C525		ECUX1H102KBN	CHIP 50V 1000P	1	
C526		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C527		ECUX1H102KBN	CHIP 50V 1000P	1	
C528		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C529		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C530		ECUX1E473ZFN	CHIP 25V 0.047U	1	
C531		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C533		ECUX1H470JCN	CHIP 50V 47P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C534		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C551		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C552		ECEA1CK100	ELECTROLYTIC 16V 100U	1	
C553		ECUX1E473ZFN	CHIP 25V 0.047U	1	
C554		ECUX1H391KBN	CHIP 50V 390P	1	
C555		ECEA1HKR22	ELECTROLYTIC 50V 0.22U	1	
C556		ECUX1H151JCN	CHIP 50V 150P	1	
C557		ECUX1H151JCN	CHIP 50V 150P	1	
C558		ECEA1HKR22	ELECTROLYTIC 50V 0.22U	1	
C559		ECUM1H122ZFN	CHIP 50V 1200P	1	
C560		ECUM1H122ZFN	CHIP 50V 1200P	1	
C561		ECEA0JK330	ELECTROLYTIC 6.3V 33U	1	
C562		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C563		ECUX1H103ZFN	CHIP 50V 0.01U	1	
			INTEGRATED CIRCUITS		
IC501		AN3224K	IC	1	
IC502		AN3311S	IC	1	
IC551		UPC1531HA	IC	1	
			COILS		
L501		VLQEL05F101K	COIL 100UH	1	
L502		VLQEL05F121K	COIL 120UH	1	
L503		VLQEL05F181K	COIL 180UH	1	
L504		VLQEL05F100J	COIL 10UH	1	
L505		VLQEL05F101K	COIL 100UH	1	
L506		VLQEL05F330J	COIL 33UH	1	
L507		VLQEL05F470J	COIL 47UH	1	
L551		VLQEL05F101K	COIL 100UH	1	
L552		VLQEL05F101K	COIL 100UH	1	
L580		VLQ0211K2R2		1	
L581		VLQ0211K2R2		1	
			CONNECTORS		
P002		VJS1927		1	
P501		VJP1248T	CONNECTOR(MALE) 8P	1	
P502		VJP1233T	CONNECTOR(MALE) 6P	1	
			TRANSISTORS		
Q501		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q551		2SB643	TRANSISTOR	1	
Q552		2SD1306	TRANSISTOR	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR551		2SD1777	TRANSISTOR - RESISTORS	1	
QR552		2SD1777	TRANSISTOR - RESISTORS	1	
			RESISTORS		
R501		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R502		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R503		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R504		ERJ6GMYJ181	CHIP 1/16W 180	1	
R505		ERJ6GMYJ331	CHIP 1/16W 330	1	
R506		ERJ6GMYJ471	CHIP 1/16W 470	1	
R507		ERJ6GMYJ221	CHIP 1/16W 220	1	
R508		ERJ6GMYJ100	CHIP 1/16W 10	1	
R509		ERJ6GMYJ100	CHIP 1/16W 10	1	
R510		ERJ6GMYJ821	CHIP 1/16W 820	1	
R511		ERJ6GMYJ821	CHIP 1/16W 820	1	
R512		ERJ6GMYJ821	CHIP 1/16W 820	1	
R513		ERJ6GMYJ471	CHIP 1/16W 470	1	

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R514		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R515		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R516		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R517		ERJ6GMYJ681	CHIP 1/16W 680	1	
R523		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R551		ERJ6GMYJ101	CHIP 1/16W 100	1	
R552		ERJ6GMYJ101	CHIP 1/16W 100	1	
R553		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R554		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R555		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R556		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R557		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R558		ERJ6GMYJ181	CHIP 1/16W 180	1	
R559		ERJ6GMYJ181	CHIP 1/16W 180	1	
R560		ERJ6GMYJ220	CHIP 1/16W 22	1	
R561		ERJ6GMYJ271	CHIP 1/16W 270	1	
R562		ERJ6GMYJ100	CHIP 1/16W 10	1	
R563		ERJ6GMYJ100	CHIP 1/16W 10	1	
R564		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R565		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R566		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R580		ERJ6GMYJ471	CHIP 1/16W 470	1	
R581		ERJ6GMYJ471	CHIP 1/16W 470	1	
			VARIABLE RESISTORS		
VR501		EVND1AA00B23	VARIABLE 2K	1	
VR502		EVND1AA00B53	VARIABLE 5K	1	
			MISCELLANEOUS		
		VSC1832	SHIELD CASE (TOP)	1	
		VSC1833	SHIELD CASE (MAIN)	1	
		VSC1834	SHIELD CASE (BOTTOM)	1	
	■	VEP04179A	FM AUDIO C.B.A.		INCLUDING SUB
					FM AUDIO C.B.A.
					(VEP00H59B)
			CAPACITORS		
C4501		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C4502		ECQB1H821JH	MYLAR 50V 820P	1	
C4505		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4506		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C4507		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C4508		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4509		ECEA0JK101	ELECTROLYTIC 6.3V 100U	1	
C4510		ECQB1H272JH	MYLAR 50V 2700P	1	
C4511		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4512		ECQB1H103JH	MYLAR 50V 0.01U	1	
C4513		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4514		ECEA25Z4R7	ELECTROLYTIC 25V 4.7U	1	
C4515		ECQB1H223JH	MYLAR 50V 0.022U	1	
C4516		ECEA16Z10	ELECTROLYTIC 16V 10U	1	
C4517		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C4518		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C4519		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C4520		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C4521		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C4522		ECEA0JK101	ELECTROLYTIC 6.3V 100U	1	
C4523		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4524		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C4525		ECQB1H272JH	MYLAR 50V 2700P	1	
C4526		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4527		ECQB1H821JH	MYLAR 50V 820P	1	
C4530		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4531		ECQB1H103JH	MYLAR 50V 0.01U	1	
C4532		ECEA1CK100	ELECTROLYTIC 16V 10U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4533		ECEA25Z4R7	ELECTROLYTIC 25V 4.7U	1	
C4534		ECQB1H223JH	MYLAR 50V 0.022U	1	
C4535		ECCF1H100DC	CERAMIC 50V 10P	1	
C4536		ECEA16Z10	ELECTROLYTIC 16V 10U	1	
C4537		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C4538		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C4539		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C4540		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4541		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4542		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4543		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4544		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4545		ECKF1H331KB	CERAMIC 50V 330P	1	
C4546		ECQB1H102KH	MYLAR 50V 1000P	1	
C4547		ECEA1EKN3R3	ELECTROLYTIC 25V 3.3U	1	
C4548		ECCF1H330JC	CERAMIC 50V 33P	1	
C4549		ECCF1H101JC	CERAMIC 50V 100P	1	
C4550		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4551		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4552		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4553		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C4554		ECEA1AK330	ELECTROLYTIC 10V 33U	1	
C4555		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4556		ECQB1H102KH	MYLAR 50V 1000P	1	
C4557		ECEA1EKN3R3	ELECTROLYTIC 25V 3.3U	1	
C4558		ECKF1H331KB	CERAMIC 50V 330P	1	
C4559		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4560		ECCF1H330KC	CERAMIC 50V 33P	1	
C4561		ECCF1H101JC	CERAMIC 50V 100P	1	
C4562		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4563		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4564		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C4565		ECCF1H100DC	CERAMIC 50V 10P	1	
C4566		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4567		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C4572		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4573		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4574		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4575		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4576		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4577		ECQV1H154JZ	MYLAR 50V 0.15U	1	
C4578		ECCF1H221JC	CERAMIC 50V 220P	1	
C4579		ECKF1H471KB	CERAMIC 50V 470P	1	
C4580		ECQB1H102KH	MYLAR 50V 1000P	1	
C4581		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4582		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C4583		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4584		ECEA1HK0R1	ELECTROLYTIC 50V 0.1U	1	
C4585		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4586		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C4587		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4589		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C4590		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4591		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C4592		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4593		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C4594		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4595		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4596		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C4597		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C4598		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C4599		ECEA1CK100Z	ELECTROLYTIC 16V 10U	1	
C4600		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C4601		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4602		ECEA1AK101	ELECTROLYTIC 10V 100U	1	
C4603		ECEA1AK101	ELECTROLYTIC 10V 100U	1	
C4604		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4605		ECEA1AK330	ELECTROLYTIC 10V 33U	1	
C4606		ECEA1AK330	ELECTROLYTIC 10V 33U	1	
C4607		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4608		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C4651		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4652		VCYD1C473MR1	SEMICONDUCTOR 16V 0.047U	1	
C4653		VCYD1C473MR1	SEMICONDUCTOR 16V 0.047U	1	
C4654		ECKF1H103ZF	CERAMIC 50V 0.01U	1	

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4655		ECEA16Z10	ELECTROLYTIC 16V 10U	1	
C4656		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4657		VCYD1C473MR1	SEMICONDUCTOR 16V 0.047U	1	
C4658		VCYD1C473MR1	SEMICONDUCTOR 16V 0.047U	1	
C4659		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C4660		ECKF1H391KB	CERAMIC 50V 390P	1	
C4661		ECKF1H391KB	CERAMIC 50V 390P	1	
C4662		ECEA16Z33	ELECTROLYTIC 33U	1	
C4663		ECEA1EKN4R7	ELECTROLYTIC 25V 4.7U	1	
C4701		ECEA1HKR33	ELECTROLYTIC 50V 0.33U	1	
C4702		ECQB1H273JH	MYLAR 50V 0.027U	1	
C4703		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4704		ECEA1HKR33	ELECTROLYTIC 50V 0.33U	1	
C4705		ECQB1H273JH	MYLAR 50V 0.027U	1	
C4706		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4707		ECQB1H333JH	MYLAR 50V 0.033U	1	
			DIODES		
D4501		MA165	DIODE	1	
D4502		MA154WK	DIODE	1	
D4503		MA165	DIODE	1	
D4504		MA154WA	DIODE	1	
D4505		MA154WA	DIODE	1	
D4506		MA165	DIODE	1	
D4508		MA165	DIODE	1	
D4511		MA156	DIODE	1	
D4651		MA165	DIODE	1	
			FILTERS		
FL4501		VLF0520	FILTER	1	
FL4503		VLF0520	FILTER	1	
FL4506		VLF0442	FILTER	1	
FL4651		VLF0443	FILTER	1	
FL4652		VLF0445	FILTER	1	
FL4653		VLF0441	FILTER	1	
			INTEGRATED CIRCUITS		
IC4501		BA7721S	IC	1	
IC4502		BA7711S	IC	1	
IC4503		AN3920K	IC	1	
IC4504		BA7056LS	IC	1	
IC4651		TA7302P	IC	1	
IC4652		TA7302P	IC	1	
			COILS		
L4501		VLQEL05F101K	COIL 100UH	1	
L4504		VLQEL05F221K	COIL 220UH	1	
L4505		VLQEL05F101K	COIL 100UH	1	
L4506		VLQEL05F101K	COIL 100UH	1	
L4651		VLQEL05F101K	COIL 100UH	1	
			CONNECTORS		
P4501		VJS1446	CONNECTOR(FEMALE)	1	
P4502		VJP1231T	CONNECTOR(MALE) 4P	1	
P4503		VJP1231T	CONNECTOR(MALE) 4P	1	
P4504		VJP1141	CONNECTOR(MALE) 2P	1	
			TRANSISTORS		
Q4501		2SD638	TRANSISTOR	1	(Q,R,S)
Q4502		2SB641	TRANSISTOR	1	(Q,R,S)
Q4503		2SD636	TRANSISTOR	1	(Q,R,S)
Q4504		2SD1330	TRANSISTOR	1	(S,T)
Q4505		2SD1330	TRANSISTOR	1	(S,T)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q4651		2SD636	TRANSISTOR	1	(Q,R,S)
Q4652		2SD636	TRANSISTOR	1	(Q,R,S)
Q4701		2SD636	TRANSISTOR	1	
Q4702		2SD636	TRANSISTOR	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR4501		UN1213	TRANSISTOR-RESISTOR	1	
QR4503		UN1213	TRANSISTOR-RESISTOR	1	
QR4507		UN1212	TRANSISTOR-RESISTOR	1	
QR4508		UN1211	TRANSISTOR-RESISTOR	1	
QR4509		UN1213	TRANSISTOR-RESISTOR	1	
QR4510		UN1112	TRANSISTOR-RESISTOR	1	
QR4511		UN1212	TRANSISTOR-RESISTOR	1	
QR4651		UN1112	TRANSISTOR-RESISTOR	1	
QR4652		UN1212	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R4501		EROS2CKG1801	METAL OXIDE 1/4W 1.8K	1	
R4502		EROS2CKG1801	METAL OXIDE 1/4W 1.8K	1	
R4503		ERDS2TJ103	CARBON 1/4W 10K	1	
R4504		EROS2CKG2201	METAL OXIDE 1/4W 2.2K	1	
R4505		ERDS2TJ225	CARBON 1/4W 2.2M	1	
R4506		ERDS2TJ333	CARBON 1/4W 33K	1	
R4507		EROS2CKG2001	METAL OXIDE 1/16W 680K	1	
R4508		EROS2CKG3601	METAL OXIDE 1/4W 3.6K	1	
R4509		EROS2CKG1002	METAL OXIDE 1/4W 10K	1	
R4510		EROS2CKG1101	METAL OXIDE 1/4W 1.1K	1	
R4511		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R4512		EROS2CKG3901	METAL OXIDE 1/4W 3.9K	1	
R4513		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R4514		EROS2CKG1201	METAL OXIDE 1/4W 1.2K	1	
R4515		ERDS2TJ103	CARBON 1/4W 10K	1	
R4516		EROS2CKG3302	METAL OXIDE 1/4W 33K	1	
R4517		ERDS2TJ223	CARBON 1/4W 22K	1	
R4518		ERDS2TJ101	CARBON 1/4W 100	1	
R4519		EROS2CKG2201	METAL OXIDE 1/4W 2.2K	1	
R4520		ERDS2TJ333	CARBON 1/4W 33K	1	
R4521		ERDS2TJ225	CARBON 1/4W 2.2M	1	
R4522		EROS2CKG1801	METAL OXIDE 1/4W 1.8K	1	
R4523		EROS2CKG1801	METAL OXIDE 1/4W 1.8K	1	
R4524		EROS2CKG2001	METAL OXIDE 1/16W 680K	1	
R4525		EROS2CKG3601	METAL OXIDE 1/4W 3.6K	1	
R4526		EROS2CKG1002	METAL OXIDE 1/4W 10K	1	
R4527		EROS2CKG1101	METAL OXIDE 1/4W 1.1K	1	
R4528		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R4529		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R4530		EROS2CKG3901	METAL OXIDE 1/4W 3.9K	1	
R4531		ERDS2TJ103	CARBON 1/4W 10K	1	
R4532		EROS2CKG1201	METAL OXIDE 1/4W 1.2K	1	
R4533		EROS2CKG3302	METAL OXIDE 1/4W 33K	1	
R4534		ERDS2TJ104	CARBON 1/4W 100K	1	
R4535		ERDS2TJ103	CARBON 1/4W 10K	1	
R4536		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R4537		EROS2CKG2402	METAL OXIDE 1/4W 24K	1	
R4538		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R4539		EROS2CKG5601	METAL OXIDE 1/4W 5.6K	1	
R4540		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R4541		EROS2CKG2402	METAL OXIDE 1/4W 24K	1	
R4542		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R4543		EROS2CKG7501	METAL OXIDE 1/4W 7.5K	1	
R4544		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R4545		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R4555		ERDS2TJ103	CARBON 1/4W 10K	1	
R4556		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R4557		ERDS2TJ471	CARBON 1/4W 470	1	
R4558		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R4559		ERDS2TJ102	CARBON 1/4W 1K	1	
R4561		ERDS2TJ391	CARBON 1/4W 390	1	
R4562		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R4563		ERDS2TJ273	CARBON 1/4W 27K	1	

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4564		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4565		ERDS2TJ473	CARBON 1/4W 47K	1	
R4566		ERDS2TJ102	CARBON 1/4W 1K	1	
R4569		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R4570		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R4572		ERDS2TJ124	CARBON 1/4W 120K	1	
R4573		ERDS2TJ101	CARBON 1/4W 100	1	
R4574		ERDS2TJ124	CARBON 1/4W 120K	1	
R4575		ERDS2TJ101	CARBON 1/4W 100	1	
R4576		ERDS2TJ680	CARBON 1/4W 68	1	
R4577		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R4578		ERDS2TJ103	CARBON 1/4W 10K	1	
R4579		ERDS2TJ272	CARBON 1/4W 2.7K	1	
R4580		ERDS2TJ103	CARBON 1/4W 10K	1	
R4581		ERDS2TJ680	CARBON 1/4W 68	1	
R4582		ERDS2TJ680	CARBON 1/4W 68	1	
R4583		ERDS2TJ103	CARBON 1/4W 10K	1	
R4584		ERDS2TJ823	CARBON 1/4W 82K	1	
R4585		ERDS2TJ102	CARBON 1/4W 1K	1	
R4586		ERDS2TJ473	CARBON 1/4W 47K	1	
R4587		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R4588		ERDS2TJ273	CARBON 1/4W 27K	1	
R4589		EROS2CKG4701	METAL OXIDE 1/4W 4.7K	1	
R4590		EROS2CKG4701	METAL OXIDE 1/4W 4.7K	1	
R4591		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R4592		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R4593		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R4594		EROS2CKG3900	METAL OXIDE 1/4W 390	1	
R4595		EROS2CKG3900	METAL OXIDE 1/4W 390	1	
R4596		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R4597		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R4598		ERDS2TJ473	CARBON 1/4W 47K	1	
R4599		ERDS2TJ103	CARBON 1/4W 10K	1	
R4600		ERDS2TJ102	CARBON 1/4W 1K	1	
R4651		ERDS2TJ102	CARBON 1/4W 1K	1	
R4652		ERDS2TJ102	CARBON 1/4W 1K	1	
R4653		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4654		ERDS2TJ101	CARBON 1/4W 100	1	
R4655		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4656		ERDS2TJ391	CARBON 1/4W 390	1	
R4657		ERDS2TJ105	CARBON 1/4W 1000K	1	
R4658		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4659		ERDS2TJ105	CARBON 1/4W 1000K	1	
R4660		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R4663		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R4664		ERDS2TJ123	CARBON 1/4W 12K	1	
R4665		ERDS2TJ124	CARBON 1/4W 120K	1	
R4667		ERDS2TJ123	CARBON 1/4W 12K	1	
R4668		ERDS2TJ124	CARBON 1/4W 120K	1	
R4669		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R4670		ERSB20J102	CARBON 1/4W 1K	1	
R4671		ERSB20J102	CARBON 1/4W 1K	1	
R4701		ERDS2TJ184	CARBON 1/4W 180K	1	
R4702		ERDS2TJ104	CARBON 1/4W 100K	1	
R4703		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R4704		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R4705		ERDS2TJ271	CARBON 1/4W 270	1	
R4706		ERDS2TJ184	CARBON 1/4W 180K	1	
R4707		ERDS2TJ104	CARBON 1/4W 100K	1	
R4708		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R4709		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R4710		ERDS2TJ271	CARBON 1/4W 270	1	
R4711		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R4712		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R4713		ERDS2TJ333	CARBON 1/4W 33K	1	
R4714		ERDS2TJ221	CARBON 1/4W 220	1	
			VARIABLE RESISTORS		
VR4501		EVN38CA00B23	VARIABLE 2K	1	
VR4502		EVND3AA00B14	VARIABLE 10K	1	
VR4503		VRV0020	VARIABLE RESISTOR	1	
VR4504		EVND3AA00B14	VARIABLE 10K	1	
VR4505		VRV0024	VARIABLE RESISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
VR4507		EVND3AA00B14	VARIABLE 10K	1	
VR4508		EVND3AA00B14	VARIABLE 10K	1	
VR4509		EVN38CA00B23	VARIABLE 2K	1	
	■	VEP06382D	OPERATION C.B.A.		
			DIODES		
D6501		LN81RCPHL	LED	1	
D6502		LN38GCPP	LED	1	
D6503		MA165	DIODE	1	
D6504		MA165	DIODE	1	
D6505		MA165	DIODE	1	
D6506		MA165	DIODE	1	
			CONNECTORS		
P6501		VJP1250T	CONNECTOR(MALE) 10P	1	
P6502		VJP1394T	CONNECTOR(MALE)	1	
P6503		VJP1244T	CONNECTOR(MALE) 4P	1	
P6505		VJP1231T	CONNECTOR(MALE) 4P	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR6501		UN1213	TRANSISTOR-RESISTOR	1	
QR6502		UN1113	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R6501		ERDS2TJ331	CARBON 1/4W 330	1	
R6502		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R6503		ERDS2TJ392	CARBON 1/4W 3.9K	1	
R6504		ERDS2TJ102	CARBON 1/4W 1K	1	
			SWITCHES		
SW6501		EVQQS307K	SWITCH	1	
SW6502		EVQQS307K	SWITCH	1	
SW6503		EVQQS307K	SWITCH	1	
SW6504		ESD14314	SWITCH	1	
SW6506		ESD14314	SWITCH	1	
SW6507		VSS0187	SWITCH	1	
SW6508		ESD14314	SWITCH	1	
SW6510		VSS0187	SWITCH	1	
			VARIABLE RESISTORS		
VR6501		EVUFSAEC4B15	VARIABLE 100K	1	
VR6502		EVUFSAEC4B15	VARIABLE 100K	1	
VR6503		EVUJ16EC4B24	VARIABLE 20K	1	
VR6504		EVJVJAF13C23	VARIABLE 2K	1	
			MISCELLANEOUS		
		KL04	LED SPACER	1	
		VMD0504	LED HOLDER	1	
		VGU3364	SLIDE KNOB	1	
		VGU3428	SLIDE KNOB	1	
		VGU3435	SLIDE KNOB	1	

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP07378C	TIMER C.B.A.		INCLUDING THE
					IR RECEIVER C.B.A
					(VEP06380B)
			CAPACITORS		
C6701		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6702		ECKF1H102KB	CERAMIC 50V 1000P	1	
C6703		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C6704		ECEA1HK3R3	ELECTROLYTIC 50V 3.3U	1	
C7501		ECCF1H080DC	CERAMIC 50V 8P	1	
C7502		ECRHA030E41		1	
C7503		ECEA1HKR22	ELECTROLYTIC 50V 0.22U	1	
C7504		ECCF1H220JC	CERAMIC 50V 22P	1	
C7505		ECCF1H330JC	CERAMIC 50V 33P	1	
C7510		ECEA1HK100	ELECTROLYTIC 50V 10U	1	
C7511		ECEA0JK221	ELECTROLYTIC 6.3V 220U	1	
C7512		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7514		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7515		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C7586		ECKF1H102ZF	CERAMIC 50V 1000P	1	
C7588		ECKF1H331KB	CERAMIC 50V 330P	1	
			DIODES		
D6701		PN323B	DIODE	1	
D7501		ERA15-01	DIODE	1	
D7502		MA4075	DIODE	1	
D7503		MA165	DIODE	1	
D7520		MA165	DIODE	1	
D7525		MA165	DIODE	1	
D7529		MA165	DIODE	1	
D7532		MA165	DIODE	1	
D7534		MA165	DIODE	1	
D7535		MA165	DIODE	1	
D7536		MA165	DIODE	1	
D7537		MA165	DIODE	1	
D7538		MA165	DIODE	1	
D7539		MA165	DIODE	1	
D7540		MA165	DIODE	1	
D7541		MA165	DIODE	1	
D7542		MA165	DIODE	1	
DP7501		VSL0101A	DISPLAY TUBE	1	
			INTEGRATED CIRCUITS		
IC6701		UPC1490HA	IC	1	
IC7501		MN15283VEU	IC	1	
IC7502		MN1220	IC	1	
IC7504		MN1280P	DIODE	1	
			COILS		
L7501		VLQEL05F221K	COIL 220UH	1	
			CONNECTORS		
P7501		VJP1250T	CONNECTOR(MALE) 10P	1	
P7502		VJS1937		1	
P7503		VJP1239T	CONNECTOR(MALE) 12P	1	
P7504		VJP1247R	CONNECTOR(MALE) 7P	1	
P7505		VJP1247T	CONNECTOR(MALE) 7P	1	
P7506		VJS1491	CONNECTOR(FEMALE)	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P7507		VJP1244T	CONNECTOR(MALE) 4P	1	
			TRANSISTORS		
Q7501		2SD637	TRANSISTOR	1	(Q,R,S)
Q7502		2SD636	TRANSISTOR	1	(Q,R,S)
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR7502		UN1213	TRANSISTOR-RESISTOR	1	
QR7503		UN1112	TRANSISTOR-RESISTOR	1	
QR7505		UN1113	TRANSISTOR-RESISTOR	1	
QR7506		UN1213	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R6701		ERDS2TJ154	CARBON 1/4W 150K	1	
R6702		ERDS2TJ100	CARBON 1/4W 10	1	
R7501		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R7503		ERDS2TJ224	CARBON 1/4W 220K	1	
R7507		ERDS2TJ104	CARBON 1/4W 100K	1	
R7508		ERDS2TJ470	CARBON 1/4W 47	1	
R7509		ERDS2TJ102	CARBON 1/4W 1K	1	
R7510		ERDS2TJ223	CARBON 1/4W 22K	1	
R7511		ERDS2TJ473	CARBON 1/4W 47K	1	
R7512		ERDS2TJ473	CARBON 1/4W 47K	1	
R7515		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7527		ERDS2TJ103	CARBON 1/4W 10K	1	
R7528		ERDS2TJ103	CARBON 1/4W 10K	1	
R7529		ERDS2TJ103	CARBON 1/4W 10K	1	
R7530		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R7531		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R7532		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R7533		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R7534		ERDS2TJ182	CARBON 1/4W 1.8K	1	
R7535		ERDS2TJ102	CARBON 1/4W 1K	1	
R7536		ERDS2TJ103	CARBON 1/4W 10K	1	
R7537		ERDS2TJ473	CARBON 1/4W 47K	1	
R7542		ERDS2TJ473	CARBON 1/4W 47K	1	
R7543		ERDS2TJ331	CARBON 1/4W 330	1	
R7544		ERDS2TJ561	CARBON 1/4W 560	1	
			VARIABLE RESISTORS		
VR6701		EVMLGGA00B15	VARIABLE 100K	1	
			CRYSTAL OSCILLATORS		
X7501		VSX0140A	CRYSTAL OSCILLATOR	1	
X7502		VSX0094A	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VEK3183	LEVEL METER ARAY	1	
		VJF0398	FIP HOLDER	1	
		VJF0412	LEVEL METER HOLDER	1	
		VSC1844	SHIELD CASE (TOP)	1	FOR IR RECIEVER C.B.A
		VSC1928	SHIELD CASE (BOTTOM)	1	FOR IR RECIEVER C.B.A
		VSC1929	SHIELD PLATE	1	FOR IR RECIEVER C.B.A
	■	VEP00H51N	INTER FACE(DEMODU UNIT)		
			C.B.A		
			CAPACITOR		

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C704		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
			CONNECTORS		
P701		VJP1231T	CONNECTOR(MALE)	1	
P702		VJP1961	CONNECTOR(MALE)	1	
P703		VJP1239T	CONNECTOR(MALE)	1	
	■	VEP07445A	DEMODULATOR PACK C.B.A.		
			CAPACITORS		
C715		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C716		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C717		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C718		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C720		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C721		ECEA1HKR27	ELECTROLYTIC 50V 0.27U	1	
C722		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C723		ECUX1H150JCN	CHIP 50V 15P	1	
C731		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C733		ECUX1H680JCN	CHIP 50V 68P	1	
C734		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C739		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C740		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C741		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C742		ECUX1H030CCN	CHIP 50V 3P	1	
C743		ECUX1H270JSN	CHIP 50V 27P	1	
C744		ECEA1HKR47	ELECTROLYTIC 50V 0.47U	1	
C745		ECUX1H680JPN	CHIP 50V 68P	1	
C746		ECUX1H120JCN	CHIP 50V 12P	1	
C747		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C752		ECUX1H102KBN	CHIP 50V 1000P	1	
C767		ECUM1H102KBN	CHIP 50V 1000P	1	
			INTEGRATED CIRCUITS		
IC701		M51366SP	IC	1	
			COILS		
L712		ELQT1R0KB	COIL	1	
L713		ELQTR82XB	COIL	1	
L714		ELQT1R2KB	COIL	1	
L715		VLQEL05F680K	COIL 68UH	1	
L715		VLQ0213K680T	COIL 68UH	1	
L717		VLQEL05F680K	COIL 68UH	1	
L718		VLQEL05F680K	COIL 68UH	1	
L719		VLQEL05F5R6K	COIL 5.6UH	1	
			TRANSISTORS		
Q710		2SC2377	TRANSISTOR	1	(C,D)
Q711		2SC2404	TRANSISTOR CHIP	1	(C,D)
Q771		2SD601	TRANSISTOR CHIP	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR702		UN2213	TRANSISTOR-RESISTOR	1	
QR713		UN2211	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R710		ERJ6GEYJ220	CHIP 1/16W 22	1	
R712		ERJ6GEYJ682	CHIP 1/16W 6.8K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R714		ERD2FCG330P	CARBON 2W 33	1	<!>
R715		ERJ6GEYJ181	CHIP 1/16W 180	1	
R716		ERJ6GEYJ152	CHIP 1/16W 1.5K	1	
R717		ERJ6GEYJ332	CHIP 1/16W 3.3K	1	
R718		ERJ6GEYJ754	CHIP 1/16W 750K	1	
R719		ERJ6GEYJ682	CHIP 1/16W 6.8K	1	
R720		ERJ6GEYJ822	CHIP 1/16W 8.2K	1	
R724		ERJ6GEYJ101	CHIP 1/16W 100	1	
R725		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R726		ERJ6GEYJ472	CHIP 1/16W 4.7K	1	
R729		ERJ6GEYJ471	CHIP 1/16W 470	1	
R731		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R732		ERJ6GEYJ330	CHIP 1/16W 33	1	
R733		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R734		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R736		ERJ6GEYJ471	CHIP 1/16W 470	1	
R737		ERJ6GEYJ474	CHIP 1/16W 470K	1	
R738		ERJ6GEYJ224	CHIP 1/16W 220K	1	
R739		ERJ6GEYJ471	CHIP 1/16W 470	1	
R740		ERJ6GEYJ473	CHIP 1/16W 47K	1	
R741		ERJ6GEYJ272	CHIP 1/16W 2.7K	1	
R742		ERJ6GEYJ272	CHIP 1/16W 2.7K	1	
R743		ERJ6GEYJ470	CHIP 1/16W 47	1	
R744		ERJ6GEYJ821	CHIP 1/16W 820	1	
R745		ERJ6GEYJ181	CHIP 1/16W 180	1	
R750		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R772		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R773		ERJ6GEYJ103	CHIP 1/16W 10K	1	
			TRANSFORMER		
T703		EIV5EC021A	TRANSFORMER	1	
T704		EIV5EC020A	TRANSFORMER	1	
			VARIABLE RESISTORS		
VR741		EVN3ACA00B14	VARIABLE 10K	1	
			CRYSTAL OSCILLATORS		
X710		EFCH38MSP31	FILTER	1	
X711		EFCS5M65MW3	FILTER	1	
X712		EFCS5R5MS5B	FILTER	1	
X751		EFCS5R74MS5B	FILTER	1	
			MISCELLANEOUS		
		VSC1788	SHIELD CASE (TOP)	1	
		VSC1789	SHIELD CASE (BOTTOM)	1	
		VSC1888	SHIELD CASE (BOTTOM)	1	
	■	VEP07447A	DECODER PACK C.B.A.		
			CAPACITORS		
C749		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C750		ECQV1H393JZ	MYLAR 50V 0.039U	1	
C753		ECQB1H103KH	MYLAR 50V 0.01U	1	
C754		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C755		ECUM1H270JPN	CHIP 50V 27P	1	
C756		ECUX1H120JCN	CHIP 50V 12P	1	
C758		ECQB1H103KH	MYLAR 50V 0.01U	1	
C760		ECUX1H390JPN	CHIP 50V 39P	1	
C761		ECUX1H120JCN	CHIP 50V 12P	1	
C762		ECQV1H393JZ	MYLAR 50V 0.039U	1	
C763		ECQB1H182JH	MYLAR 50V 1800P	1	
C7312		ECQV1H224JZ	MYLAR 50V 0.22U	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C7314		ECQV1H224JZ	MYLAR 50V 0.22U	1	
C7316		ECQV1H224JZ	MYLAR 50V 0.22U	1	
C7331		ECQV1H474JZ	MYLAR 50V 0.47U	1	
			DIODES		
D712		MA28W	DIODE	1	
			INTEGRATED CIRCUITS		
IC751		AN5215	IC	1	
IC752		AN5215	IC	1	
IC753		UPD4066BC	IC	1	
			TRANSISTORS		
Q713		2SD1328	TRANSISTOR CHIP	1	(S,T)
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR714		UN2214	TRANSISTOR-RESISTOR	1	
QR715		UN2214	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R756		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R757		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R758		ERJ6GEYJ472	CHIP 1/16W 4.7K	1	
R759		ERJ6GEYJ472	CHIP 1/16W 4.7K	1	
R760		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R761		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R762		ERJ6GEYJ471	CHIP 1/16W 470	1	
R763		ERJ6GEYJ471	CHIP 1/16W 470	1	
R764		ERJ6GEYJ222	CHIP 1/16W 2.2K	1	
R766		ERJ6GEYJ103	CHIP 1/16W 10K	1	
			TRANSFORMER		
T752		EIS5EC007A	TRANSFORMER	1	
T753		EIS5EC007A	TRANSFORMER	1	
			VARIABLE RESISTORS		
VR751		EVN38CA00B14	VARIABLE 10K	1	
VR752		EVN38CA00B14	VARIABLE 10K	1	
			CRYSTAL OSCILLATOR		
X715		EFCA6R5MB3	CRYSTAL OSCILLATOR	1	
	■	VEP07446A	TUNER/ARU PACK C.B.A.		
			CAPACITORS		
C701		ECEA1CKS220	ELECTROLYTIC 16V 22U	1	
C702		ECEA1CK220	ELECTROLYTIC 16V 22U	1	
C703		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C705		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C707		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C708		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C709		ECKF1H1032F	CERAMIC 50V 0.001U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C710		ECUX1H103ZF	CHIP 50V 0.01U	1	
C728		ECUX1H103ZF	CHIP 50V 0.01U	1	
C730		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C748		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C764		ECQV1H823JZ	MYLAR 50V 0.082U	1	
C765		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C766		ECUX1H103ZF	CHIP 50V 0.01U	1	
C768		ECUX1H103ZF	CHIP 50V 0.01U	1	
C7651		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7652		ECEA1CKN330	ELECTROLYTIC 16V 33U	1	
C7653		ECQB1H392JH	MYLAR 50V 3900P	1	
C7654		ECQB1H103JH	MYLAR 50V 0.01U	1	
C7655		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7656		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7657		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7658		ECQP1562JZ	MYLAR 100V 5600P	1	
C7659		ECQB1H272JH	MYLAR 50V 2700P	1	
			DIODES		
D710		MA3100L	DIODE	1	
			INTEGRATED CIRCUITS		
IC7651		AN5421	IC	1	
			COILS		
L701		VLQEL05F680K	COIL 68UH	1	
L702		VLQEL05F680K	COIL 68UH	1	
L703		VLQEL05F221K	COIL 220UH	1	
L704		VLQEL05F221K	COIL 220UH	1	
L705		VLQEL05F680K	COIL 68UH	1	
L711		ELQTR47KB	COIL	1	
			TRANSISTORS		
Q703		2SD601	TRANSISTOR	1	(S,T)
Q712		2SC1317	TRANSISTOR	1	
Q715		2SD601	TRANSISTOR CHIP	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR701		UN2214	TRANSISTOR-RESISTOR	1	
QR711		UN2212	TRANSISTOR-RESISTOR	1	
QR712		UN2212	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R707		ERDS2TJ102	CARBON 1/4W 1K	1	
R708		ERDS2TJ221	CARBON 1/4W 220	1	
R713		ERJ6GEYJ681	CHIP 1/16W 680	1	
R721		ERJ6GEYJ392	CHIP 1/16W 3.9K	1	
R722		ERJ6GEYJ392	CHIP 1/16W 3.9K	1	
R723		ERJ6GEYJ183	CHIP 1/16W 180K	1	
R728		ERDS2TJ471	CARBON 1/4W 470	1	
R746		ERDS2TJ181	CARBON 1/4W 180	1	
R765		ERJ6GEYJ152	CHIP 1/16W 1.5K	1	
R767		ERJ6GEYJ750	CHIP 1/16W 75	1	
R791		ERJ6GEY0R00		1	
R7651		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R7654		ERJ6GEYJ562	CHIP 1/16W 5.6K	1	
R7655		ERJ6GEYJ472	CHIP 1/16W 4.7K	1	
R7656		ERJ6GEYJ151	CHIP 1/16W 150	1	
R7657		ERDS2TJ104	CARBON 1/4W 100K	1	
R7658		ERDS2TJ393	CARBON 1/4W 39K	1	
R7659		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R7661		ERDS2TJ562	CARBON 1/4W 5.6K	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CONNECTORS		
P1504		VJP1939	CONNECTOR (MALE) 12P	1	
P1505		VJP1242T	CONNECTOR (MALE) 2P	1	
			RESISTORS		
R1501		ERDS2TJ223	CARBON 1/4W 22K	1	
	■	VEP00H31A	REEL SENSOR C.B.A.		
			PHOTO TRANSISTOR		
			INTEGRATED CIRCUITS		
IC1501		ON2170		1	
			CONNECTOR		
			CONNECTORS		
P1506		VJP1242	2P	1	
	■	VXA2689	LED C.B.A. UNIT		
			DIODES		
D1501		GL450	PHOTO DIODE	1	
			MISELLANEOUS		
		VMD0911	LED HOLDER	1	
		VWJ0254	FLEXISIBLE C.B	1	
	■	VEP00K27A	TAKEUP PHOTO Tr C.B.A.		
			CAPACITORS		
C1502		ECKW1H102KBN	CERAMIC 50V 1000P	1	
			RESISTORS		
R1503		ERDS2TJ222	CARBON 1/4W 2.2K	1	
			CONNECTORS		
P1503		VJS1936		1	
P1508		VJP1242T		1	
			TRANSISTOR		
Q1502		PN150NV	PHOTO TRANSISTOR	1	
			MISCELLANEOUS		
		VMD0645	PHOTO TR HOLDER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP00H35A	SUPPLY PHOTO Tr C.B.A.		
			CAPACITOR		
C1501		ECKW1H102KBN	CERAMIC 50V 1000P	1	
			TRANSISTOR		
Q1501		PN150NV	PHOTO TRANSISTOR	1	
			MISCELLANEOUS		
		VMD0645	PHOTO TR HOLDER	1	

To guarantee the FUNCTION,SAFETY and RELIABLITY of repaired units,only use ORIGINAL REPLACEMENT PARTS which are listed with their part numbers in this parts list section.

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Order No. VRD8712S193

Service Manual

Supplement

Video Product

Model No. NV-G21EE
NV-H65EE

Effective from: First Production

Subject: Addition of Mechanical Parts List

Please use this manual together with the Service Manual for Order No. VRD8710M159
Model No. NV-G21EE/H65EE

The following Parts List must be attached to the Service Manual for NV-G21EE/H65EE (VRD8710M159) refering exploded views on related Service Manual NV-G21EG/B/EO/EV (VRD8701104) and NV-H65EG/B/EO/EV (VRD8610143).

1. NV-G21EE Mechanical Replacement Parts List.

Note: 1. * Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VHD0268	HEAD AMP SET SCREW	3	
2(1)		VMA6897	HEAD AMP MOUNT ANGLE (L)	1	
3(1)		VMA6898	HEAD AMP MOUNT ANGLE (R)	1	
4(1)		VEK2361	DEW SENSOR UNIT	1	
5(1)		VXA2702	EARTH PLATE UNIT	1	
6(1)		VEG0595	CYLINDER UNIT	1	<!>
7(1)		VEH0343	UPPER CYLINDER UNIT	1	
9(1)		VXA2703	MAIN HOLDER UNIT	1	
10(1)		VSC1806	CYLINDER C.B.A SHIELD PLATE	1	
11(1)		VXL1495	TENSION ARM (1) UNIT	1	
12(1)		VMB1563	TENSION SPRING	1	
13(1)		VXZ0225	TENSION BAND UNIT	1	
14(1)		VXR0145	SUPPLY REEL TABLE UNIT	1	
15(1)		VMX1171	REEL WASHER	2	
16(1)		VXL1496	TENSION RELEASE ARM(A)UNIT	1	
17(1)		VBS0038	FE HEAD	1	
18(1)		VXA2705	TENSION ARM BASE (1) UNIT	1	
19(1)		VMA6895	MOUNT ANGLE (L)	1	
20(1)		VMX1079	CUT WASHER	5	
21(1)		VXL1497	TENSION RELEASE ARM(B)UNIT	1	
22(1)		VMB1582	TENSION RELEASE SPRING	1	
23(1)		VES0350	SAFETY SW	1	
24(1)		VXZ0229	SUPPLY MAIN BRAKE UNIT	1	
25(1)		VXZ0228	SUPPLY SOFT BRAKE(1)UNIT	1	
26(1)		VMB1564	SUPPLY SOFT BRAKE SPRING	1	
27(1)		VXZ0231	TAKE UP MAIN BRAKE UNIT	1	
28(1)		VXZ0221	TAKE UP SOFT BRAKE UNIT	1	
29(1)		VMB1561	TAKE UP SOFT BRAKE SPRING	1	
30(1)		VMA6896	MOUNT ANGLE (R)	1	
31(1)		VHD0322	ADJUST SCREW	1	
32(1)		VMB1251	ADJUST SPRING	1	
33(1)		VHD0089B	AZIMUTH ADJUST SCREW	1	
34(1)		VBR0125	A/C HEAD	1	
35(1)		VHN0063	M4 NYLON NUT	1	
36(1)		VHN0050	ADJUST NUT	1	
37(1)		VXA2675	HEAD BASE UNIT	1	
38(1)		VMB1567	A/C HEAD SPRING	1	
39(1)		VXL1480	SUB LOADING ARM (1) UNIT	1	
40(1)		VMB1566	SUB POST SPRING	1	
41(1)		VXQ0006	THRUST SCREW UNIT	1	
42(1)		VHD0317	HOUSING SCREW	3	
43(1)		VMX1033	OIL SEAL	2	
44(1)		VMX1353	PINCH CAM CAP	1	
45(1)		VXL1743	PRESSURE ROLLER UNIT	1	
46(1)		VMB1568	PIN PRESSURE SPRING	1	
47(1)		VML1873	PINCH PRESSURE ARM	1	
48(1)		VMB1569	PINCH PRESSURE ARM RELEASE SPRING	1	
49(1)		VML1874	PINCH LIFT ARM	1	
50(1)		VDG0357	P5 PULL OUT SECTOR GEAR	1	
51(1)		VDG0421	PINCH CAM	1	
52(1)		VHN0023	M3 NYLON NUT	1	
53(1)		VXL1485	P5 UNIT	1	
54(1)		VMB1554	P5 SPRING	1	
55(1)		VSS0175A	MODE SW	1	
56(1)		VSC1851	SHIELD PLATE	1	
57(1)		VXP0863	ROLLER POST UNIT	1	
58(1)		VXA2729	INCLIND BASE (S)(1)UNIT	1	
59(1)		VHD0133	ROLLER POST SCREW	2	
60(1)		VMD0910	POST STOPPER	2	
61(1)		VXP0764A	ROLLER POST UNIT	1	
62(1)		VXA2686	INCLIND BASE(T)(1)UNIT	1	
63(1)		VXA2687	INCLIND ADJUST PLATE UNIT	1	
64(1)		VDG0483	PINCH SPEED DOWN GEAR	1	
65(1)		VDG0332	CONNECTION GEAR	1	
66(1)		VXA2693	SOLENOID	1	
67(1)		VXA2692	KICK ROD UNIT	1	

National/Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

Printed in Japan

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Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
68(1)		VML1849	SOLENOID LEVER (1) UNIT	1	
69(1)		VMB1553	KICK ROD SPRING	1	
70(1)		VMB1565	MAIN BRAKE SPRING	1	
71(1)		VXR0146	TAKE UP REEL TABLE UNIT	1	
72(1)		VXD0101	HOUSING UNIT	1	
73(1)		VHD0342	CYLINDER UNIT MOUNT SCREW	3	
74(1)		VSC1843	HEAT SINK PLATE	1	
100(2)		VMX1079	CUT WASHER	8	
101(2)		VMB1583	TAKE UP SOFT BRAKE RELEASE	1	
			ARM SPRING		
102(2)		VMB1560	MAIN LEVER SPRING	1	
103(2)		VXA2701	MAIN LEVER (1) UNIT	1	
104(2)		VMM0160	SUB LEVER	1	
105(2)		VXL1500	SS BRAKE ARM UNIT	1	
106(2)		VMB1588	SS BRAKE SPRING	1	
107(2)		VXA2707	SS BRAKE BASE (1) UNIT	1	
108(2)		VXA2674	TENSION ROLLER UNIT	1	
109(2)		VXL1632	CAM FOLLOWER ARM UNIT	1	
110(2)		VML1861	DETENT ARM	1	
111(2)		VDG0346	MAIN CAM GEAR	1	
112(2)		VDG0343	SUB CAM GEAR	1	
113(2)		VDG0348	CENTRE GEAR	1	
114(2)		VDG0422	RETAINER GEAR	1	
115(2)		VDG0345	PLANET GEAR	2	
116(2)		VDG0448	CLUTCH DISK	1	
117(2)		VMB1558	CLUTCH SPRING	1	
118(2)		VDG0350	LOCK SLIDE GEAR	1	
119(2)		VDG0335	DRIVE DISK	1	
120(2)		VDG0342	RING GEAR	1	
121(2)		VMX0967	CUT WASHER	2	
122(2)		VML1859	CHANGE LEVER	1	
123(2)		VXA2672	RELEASE LEVER (1) UNIT	1	
124(2)		VMB1557	RELEASE SPRING	1	
125(2)		VML1860	RELEASE LEVER	1	
127(2)		VXP0923	TAKE UP REEL GEAR UNIT	1	
128(2)		VDG0445	SUPPLY REEL GEAR	1	
129(2)		VML1858	RETURN LEVER (R)	1	
130(2)		VML1857	RETURN LEVER (L)	1	
131(2)		VMD0913	STOPPER BASE	1	
132(2)		VDV0169	TIMING BELT	1	
133(2)		VXP0777	ROTOR UNIT	1	
134(2)		VMA6998	ROTOR STOPPER	1	
135(2)		VEK2944	STATOR UNIT	1	<!>
136(2)		VMA6847	SUB PLATE	1	
137(2)		VXP0917	CENTRE PULLEY UNIT	1	
138(2)		VDG0340	LOADING GEAR (T)	1	
139(2)		VMB1555	LOADING SPRING	2	
140(2)		VXL1489	LOADING ARM (T)(1) UNIT	1	
141(2)		VXA3144	SECTOR GEAR UNIT	1	
142(2)		VDG0448	LOADING CAM GEAR	1	
143(2)		VDG0339	LOADING GEAR (S)	1	
144(2)		VML1855	PLAY CONTROL ARM	1	
145(2)		VXL1487	LOADING ARM (S)(1) UNIT	1	
146(2)		VDG0336	INTERMEDIATE GEAR	1	
147(2)		VXL1490	PLAY ARM UNIT	1	
148(2)		VBK0048	FG HEAD	1	
201(3)		VMA7223	TOP PLATE	1	
202(3)		VXA2679	CASSETTE HOLDER UNIT	1	
203(3)		VMB1573	MOUNT LEVER SPRING	1	
204(3)		VMD0919	HOLDER GUIDE (L)	1	
205(3)		VMM0163	MOUNT LEVER	1	
206(3)		VDP1077	ROLLER	2	
207(3)		VML1883	PRESSURE LEVER (L)	1	
208(3)		VMA6902	HOLDER ANGLE	1	
209(3)		VMA6901	CASSETTE HOLDER	1	
210(3)		VML1882	OPENER LEVER	1	
211(3)		VML1884	PRESSURE LEVER (R)	1	
212(3)		VMB1584	OPENER LEVER SPRING	1	
213(3)		VMD0920	HOLDER GUIDE (R)	1	
214(3)		VMB1576	RELEASE SPRING	1	
215(3)		VML1881	RELEASE LEVER	1	
216(3)		VXA2676	SIDE PLATE (L) UNIT	1	
217(3)		VMD0917	SIDE PLATE (L)	1	
218(3)		VML1880	OPENER LEVER	1	
219(3)		VXA3015	SIDE PLATE (R) UNIT	1	
220(3)		VMD0918	SIDE PLATE (R)	1	
221(3)		VSS0176	SLIDE SW	1	
222(3)		VML1886	DOWN SUPPORT LEVER	1	
223(3)		VMB1575	DOWN SUPPORT SPRING	1	
224(3)		VXA3148	RACK (A)(1) UNIT	1	
225(3)		VMB1778	CLUTCH SPRING	1	
226(3)		VMB1772	LOCK SPRING	1	
227(3)		VML1885	LOCK LEVER	1	
228(3)		VXA3147	RACK (B) UNIT	1	
229(3)		VXP0851	MAIN SHAFT UNIT	1	
230(3)		VMB1570	SUB WIPER SPRING (L)	1	
231(3)		VML1878	SUB WIPER ARM	1	
232(3)		VML1879	SUB WIPER ARM (R)	1	
233(3)		VMB1571	SUB WIPER SPRING (R)	1	
234(3)		VMA6900	CASSETTE GUIDE	1	
235(3)		VKF0848	BLINDER PANEL	1	
236(3)		VMB1258	BLINDER SPRING	1	
237(3)		VMB1780	RACK (C) SPRING	1	
238(3)		VMA7237	CONNECTION ROD	1	
239(3)		VMB1779	CONNECTION ROD	1	
240(3)		VMA7224	CASSETTE HOLDER ANGLE	1	
300(4)		VYP1895	TOP PANEL UNIT	1	
301(4)		VHD0304	TOP PANEL SCREW	2	
302(4)		VYP1803	FRONT LOWER PANNEL	1	
303(4)		VMG0272	RF CONVERTER BUSHING	1	
305(4)		VGQ1160	C.B. HOLDER	1	
306(4)		VGQ1084	HOLDER (A)	1	
307(4)		VGQ1085	HOLDER (B)	1	
308(4)		VGQ1086	HOLDER (C)	1	
313(4)		VGH1127	POWER NAME PLATE	1	
314(4)		VSC1827	SHIELD CASE (L)	1	
315(4)		VMZ0916	BARRIER (B)	1	<!>
316(4)		VMZ0902	BARRIER (A)	1	<!>
317(4)		VMZ0948	BARRIER (E)	1	<!>
318(4)		VSC1830	HEAT SINK	1	
319(4)		VSC1924	SHIELD CASE MAIN	1	
320(4)		VMZ0876	INSULATION SHEET	2	<!>
321(4)		VGQ1109	TR. HOLDER	1	
322(4)		VMZ0917	BARRIER (C)	1	<!>
323(4)		VMZ0918	BARRIER (D)	1	<!>
324(4)		VSC1829	SHIELD CASE (R)	1	
326(4)		VMP1038	TOP HOLDER ANGLE (R)	1	
327(4)		VMP1037	TOP HOLDER ANGLE (L)	1	
328(4)		VKA0026	RUBBER FOOT	2	
329(4)		VJF0285	WIRE SUDDLE	2	
334(4)		VYP2185	FRONT PANEL UNIT	1	
335(4)		VYF1035	FRONT DOOR UNIT	1	
336(4)		VKU0245	BOTTOM PLATE	1	
337(4)		VHD0059	BOTTOM SCREW	5	
338(4)		VHD0268	SCREW	2	
339(4)		VMZ1005	BARRIER	1	
400(5)		VQT2528	OPERATING INSTRUCTIONS	1	(ENGLISH,GARMAN,
					FRENCH) <!>
400(5)		VQT2529	OPERATING INSTRUCTIONS	1	(RUSSIAN,POLISH)<!>
401(5)		VJA0376	DIN RF CABLE	1	
403(5)		VEQ0539	REMOTE CONTROL UNIT	1	
404(5)		VPN1709	CUSHION (R)	1	
405(5)		VPN1710	CUSHION (L)	1	
406(5)		VPG3830	PACKING CASE	1	
408(5)		VJA0449	AC CORD	1	<!>
409(5)		VEQ0639	DIGITAL SCANNER	1	
410(5)		VQC1124	PROGRAMME SHEET	1	
411(5)		VQT2538	OPERATING INSTRUCTIONS	1	<!>
			(DIGITAL SCANNER)		
412(5)		VPK0688	ACCESSORIES PACKING CASE	1	
413(5)		VPN1822	ACCESSORIES CUSHION	1	
450(6)		VYK1596	TOP CASE UNIT	1	
451(6)		VKM0843	BOTTOM CASE	1	
452(6)		VKF0824	BATTERY COVER	1	
453(6)		VKW0758	IR WINDOW	1	
454(6)		VSP0267	RUBBER CONTACT	1	
455(6)		VGU3406	POWER BUTTON	1	
456(6)		VGU3407	REC BUTTON (RED)	1	
457(6)		VGU3408	REC BUTTON (BLACK)	1	
458(6)		VGU3403	STILL BUTTON	1	
459(6)		VGU3410	STOP BUTTON	1	
460(6)		VGU3404	STILL ADV BUTTON	1	
461(6)		VGU3412	REW BUTTON	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
462(6)		VGU3409	PLAY BUTTON	1	
463(6)		VGU3411	FF BUTTON	1	
464(6)		VJR0229	ELECTRODE (COMMON)	1	
465(6)		VGU2274	CH BUTTON	4	
466(6)		VGU3628	TIMER REC BUTTON	1	
470(7)		VYK1886	CASE (A) UNIT	1	
470(7)		VYK1810	CASE (B) UNIT	1	
471(7)		VGU4040	TRANSM1SSON BUTTON	1	
472(7)		VGU3709	POWER SW KNOB	1	
473(7)		VJR0395	ELECTRODE (A)	1	
474(7)		VJR0396	ELECTRODE (B)	1	
475(7)		VJR0272	ELECTRODE (C)	1	
476(7)		VKF0900	BATTERY COVER	1	
477(7)		VMB1691	SUPPRT ANGLE	1	
478(7)		VKW0772	SMOKE FILTER	1	
479(7)		VSQ0567	SENSOR UNIT	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			JIG		
		VFJ8125H3F	VHS-ALIGNMENT TAPE(PAL)	1	
		VFK0335	RETAINING RING REMOVER	1	
			(3mm/4mm)		
		VFK0387	TENSION POST ADJUSTMENT	1	
			PLATE		
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0190	REEL TABLE HEIGHT GAUGE	1	
		VFK0328	H-POSITION ADJ.	1	
			SCREWDRIVER		
		VFK0329	POST ADJUSTMENT SCREWDRIVER	1	
		VFK62	FAN TYPE TENSION GAUGE	1	
		VFK0326	HEX WRENCH SET	1	
		VFK0132	BACK TENSION METER	1	
		VFK0343	CHECK LIGHT	1	
		VFK0344	HEIGHT ADJUSTMENT JIG	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLYTONE GREASE	1	
		VFK0283	SERVICE ALIGNMENT TOOL KIT	1	
		VFK0341	UPPER CYLINDER REMOVER	1	

2. NV-H65EE Mechanical Replacement Parts List.

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VHD0141	HEAD AMP SET SCREW	2	
2(1)		VMA6897	HEAD AMP MOUNT ANGLE (L)	1	
3(1)		VMA6898	HEAD AMP MOUNT ANGLE (R)	1	
5(1)		VXA2702	EARTH PLATE UNIT	1	
6(1)		VEG0557	CYLINDER UNIT	1	<!>
7(1)		VEH0339	UPPER CYLINDER UNIT	1	
9(1)		VMA6884	MAIN HOLDER UNIT	1	
10(1)		VSC2188	CYLINDER C.B.A SHIELD PLATE	1	
11(1)		VXL1495	TENSION ARM (1) UNIT	1	
12(1)		VMB1563	TENSION SPRING	1	
13(1)		VXZ0225	TENSION BAND UNIT	1	
14(1)		VXR0145	SUPPLY REEL TABLE UNIT	1	
15(1)		VMX1171	REEL WASHER	2	
16(1)		VXL1496	TENSION RELEASE ARM(A)UNIT	1	
17(1)		VBS0038	FE HEAD	1	
18(1)		VXA2705	TENSION ARM BASE (1) UNIT	1	
19(1)		VMA6895	MOUNT ANGLE (L)	1	
20(1)		VMX1079	CUT WASHER	5	
21(1)		VXL1497	TENSION RELEASE ARM(B)UNIT	1	
22(1)		VMB1582	TENSION RELEASE SPRING	1	
23(1)		VES0350	SAFETY SW	1	
24(1)		VXZ0229	SUPPLY MAIN BRAKE UNIT	1	
25(1)		VXZ0228	SUPPLY SOFT BRAKE(1)UNIT	1	
26(1)		VMB1564	SUPPLY SOFT BRAKE SPRING	1	
27(1)		VXZ0231	TAKE UP MAIN BRAKE UNIT	1	
28(1)		VXZ0221	TAKE UP SOFT BRAKE UNIT	1	
29(1)		VMB1561	TAKE UP SOFT BRAKE SPRING	1	
30(1)		VMA6896	MOUNT ANGLE (R)	1	
31(1)		VHD0322	ADJUST SCREW	1	
32(1)		VMB1251	ADJUST SPRING	1	
33(1)		VHD0089B	AZIMUTH ADJUST SCREW	1	
34(1)		VBR0125	A/C HEAD	1	
35(1)		VHN0063	M4 NYLON NUT	1	
36(1)		VHN0050	ADJUST NUT	1	
37(1)		VXA2675	HEAD BASE UNIT	1	
38(1)		VMB1567	A/C HEAD SPRING	1	
39(1)		VXL1480	SUB LOADING ARM (1) UNIT	1	
40(1)		VMB1566	SUB POST SPRING	1	
41(1)		VXQ0006	THRUST SCREW UNIT	1	
42(1)		VHD0317	HOUSING SCREW	3	
43(1)		VMX1033	OIL SEAL	2	
44(1)		VMX1353	PINCH CAM CAP	1	
45(1)		VXL1743	PRESSURE ROLLER UNIT	1	
46(1)		VMB1568	PIN PRESSURE SPRING	1	
47(1)		VML1873	PINCH PRESSURE ARM	1	
48(1)		VMB1569	PINCH PRESSURE ARM RELEASE	1	
			SPRING		
49(1)		VML1874	PINCH LIFT ARM	1	
50(1)		VDG0357	P5 PULL OUT SECTOR GEAR	1	
51(1)		VDG0421	PINCH CAM	1	
52(1)		VHN0023	M3 NYLON NUT	1	
53(1)		VXL1485	P5 UNIT	1	
54(1)		VMB1554	P5 SPRING	1	
55(1)		VSS0175	MODE SW	1	
56(1)		VSC1851	SHIELD PLATE	1	
57(1)		VXP0863	ROLLER POST UNIT	1	
58(1)		VXA2729	INCLIND BASE (S)(1)UNIT	1	
59(1)		VHD0133	ROLLER POST SCREW	2	
60(1)		VMD0910	POST STOPPER	2	
61(1)		VXP0764A	ROLLER POST UNIT	1	
62(1)		VXA2686	INCLIND BASE(T)(1)UNIT	1	
63(1)		VXA2687	INCLIND ADJUST PLATE UNIT	1	
64(1)		VDG0483	PINCH SPEED DOWN GEAR	1	
65(1)		VDG0332	CONNECTION GEAR	1	
66(1)		VXA2693	SOLENOID	1	
67(1)		VXA2692	KICK ROD UNIT	1	
68(1)		VML1849	SOLENOID LEVER (1) UNIT	1	
69(1)		VMB1553	KICK ROD SPRING	1	
70(1)		VMB1565	MAIN BRAKE SPRING	1	
71(1)		VXR0146	TAKE UP REEL TABLE UNIT	1	
72(1)		VXD0101	HOUSING UNIT	1	
73(1)		VHD0342	CYLINDER MOUNT SCREW	3	
74(1)		VSC1843	HEAT SINK PLATE	1	
100(2)		VMX1079	CUT WASHER	8	
101(2)		VMB1583	TAKE UP SOFT BRAKE RELEASE	1	
			ARM SPRING		
102(2)		VMB1560	MAIN LEVER SPRING	1	
103(2)		VXA2701	MAIN LEVER (1) UNIT	1	
104(2)		VMM0160	SUB LEVER	1	
105(2)		VXL1500	SS BRAKE ARM UNIT	1	
106(2)		VMB1588	SS BRAKE SPRING	1	
107(2)		VXA2707	SS BRAKE BASE (1) UNIT	1	
108(2)		VXA2674	TENSION ROLLER UNIT	1	
109(2)		VXL1632	CAM FOLLOWER ARM UNIT	1	
110(2)		VML1861	DETENT ARM	1	
111(2)		VDG0346	MAIN CAM GEAR	1	
112(2)		VDG0343	SUB CAM GEAR	1	
113(2)		VDG0348	CENTRE GEAR	1	
114(2)		VDG0422	RETAINER GEAR	1	
115(2)		VDG0345	PLANET GEAR	3	
116(2)		VDG0349	CLUTCH DISK	1	
117(2)		VMB1558	CLUTCH SPRING	1	
118(2)		VDG0350	LOCK SLIDE GEAR	1	
119(2)		VDG0335	DRIVE DISK	1	
120(2)		VDG0342	RING GEAR	1	
121(2)		VMX0967	CUT WASHER	2	
122(2)		VML1859	CHANGE LEVER	1	
123(2)		VXA2672	RELEASE LEVER (1) UNIT	1	
124(2)		VMB1557	RELEASE SPRING	1	
125(2)		VML1860	RELEASE LEVER	1	
127(2)		VXP0923	TAKE UP REEL GEAR UNIT	1	
128(2)		VDG0445	SUPPLY REEL GEAR	1	
129(2)		VML1858	RETURN LEVER (R)	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
30(2)		VML1857	RETURN LEVER (L)	1	
31(2)		VMD0913	STOPPER BASE	1	
32(2)		VDV0169	TIMING BELT	1	
33(2)		VXP0777	ROTOR UNIT	1	
34(2)		VMA6998	ROTOR STOPPER	1	
35(2)		VEK2944	STATOR UNIT	1	<!>
36(2)		VMA6847	SUB PLATE	1	
37(2)		VXP0917	CENTRE PULLEY UNIT	1	
38(2)		VDG0420	LOADING GEAR (T)	1	
39(2)		VMB1555	LOADING SPRING (T)	1	
40(2)		VXL1489	LOADING ARM (T)(1) UNIT	1	
41(2)		VXA3144	SECTOR GEAR UNIT	1	
42(2)		VDG0448	LOADING CAM GEAR	1	
43(2)		VDG0419	LOADING GEAR (S)	1	
44(2)		VML1855	PLAY CONTROL ARM	1	
45(2)		VXL1487	LOADING ARM (S)(1) UNIT	1	
46(2)		VDG0336	INTERMEDIATE GEAR	1	
47(2)		VXL1490	PLAY ARM UNIT	1	
48(2)		VBK0048	FG HEAD	1	
49(2)		VMB1746	LOADING SPRING(S)	1	
01(3)		VMA7223	TOP PLATE	1	
02(3)		VXA2679	CASSETTE HOLDER UNIT	1	
03(3)		VMB1573	MOUNT LEVER SPRING	1	
04(3)		VMD0919	HOLDER GUIDE (L)	1	
05(3)		VMM0163	MOUNT LEVER	1	
06(3)		VDP1077	ROLLER	2	
07(3)		VML1883	PRESSURE LEVER (L)	1	
08(3)		VMA6902	HOLDER ANGLE	1	
09(3)		VMA6901	CASSETTE HOLDER	1	
10(3)		VML1882	OPENER LEVER	1	
11(3)		VML1884	PRESSURE LEVER (R)	1	
12(3)		VMB1584	OPENER LEVER SPRING	1	
13(3)		VMD0920	HOLDER GUIDE (R)	1	
14(3)		VMB1576	RELEASE SPRING	1	
15(3)		VML1881	RELEASE LEVER	1	
216(3)		VXA2676	SIDE PLATE (L) UNIT	1	
217(3)		VMD0917	SIDE PLATE (L)	1	
218(3)		VML1880	OPENER LEVER	1	
219(3)		VXA3015	SIDE PLATE (R) UNIT	1	
220(3)		VMD0918	SIDE PLATE (R)	1	
221(3)		VSS0176	SLIDE SW	1	
222(3)		VML1886	DOWN SUPPORT LEVER	1	
223(3)		VMB1575	DOWN SUPPORT SPRING	1	
224(3)		VXA3148	RACK (A)(1) UNIT	1	
225(3)		VMB1778	CLUTCH SPRING	1	
226(3)		VMB1772	LOCK SPRING	1	
227(3)		VML1885	LOCK LEVER	1	
228(3)		VXA3147	RACK (B) UNIT	1	
229(3)		VXP0771	MAIN SHAFT UNIT	1	
230(3)		VMB1570	SUB WIPER SPRING (L)	1	
231(3)		VML1878	SUB WIPER ARM	1	
232(3)		VML1879	SUB WIPER ARM (R)	1	
233(3)		VMB1571	SUB WIPER SPRING (R)	1	
234(3)		VMA6900	CASSETTE GUIDE	1	
235(3)		VKF0848	BLINDER PANEL	1	
236(3)		VMB1258	BLINDER SPRING	1	
237(3)		VMB1780	RACK (C) SPRING	1	
238(3)		VMA7237	CONNECTION ROD	1	
239(3)		VMB1779	CONNECTION ROD SPRING	1	
240(3)		VMA7224	CASSETTE HOLDER ANGLE	1	
300(4)		VYP1814	TOP PANEL UNIT	1	
301(4)		VHD0304	TOP PANEL SCREW	4	
302(4)		VHD0268	C.B. MOUNT SCREW	1	
303(4)		VMP1059	C.B. ANGLE	1	
304(4)		VMG0272	RF CONVERTER BUSHING	1	
305(4)		VJH0418	RF & ANT BOARD	1	
307(4)		VKC0083	HINGE CLIP	1	
308(4)		VJF0236	C.B. SUPPORTER	4	
309(4)		VMX0985	C.B. SPACER	1	
313(4)		VGH1127	POWER NAME PLATE	1	<!>
314(4)		VSC2178	SHIELD CASE (L)	1	
315(4)		VMZ1083	BARRIER (A)	1	<!>
316(4)		VMZ1084	BARRIER (B)	1	<!>
318(4)		VSC1933	HEAT SINSK	1	
319(4)		VSC1924	SHIELD CASE MAIN	1	
320(4)		VMZ1089	INSULATION SHEET	1	<!>
321(4)		VGQ1352	TR. HOLDER	1	
322(4)		VMZ1085	BARRIER (C)	1	<!>
323(4)		VMZ1086	BARRIER (D)	1	<!>
324(4)		VSC1829	SHIELD CASE (R)	1	
326(4)		VMP1127	TOP HOLDER ANGLE	1	
327(4)		VMP1037	TOP HOLDER ANGLE (L)	3	
328(4)		VKA0026	RUBBER FOOT	2	
329(4)		VJF0442	WIRE SUDLE	4	
330(4)		VYP1762	SUPPORT PANEL (L) UNIT	1	
331(4)		VYP2104	FRONT PANEL UNIT	1	
332(4)		VYP1813	SUPPORT PANEL (R) UNIT	1	
338(4)		VYF0963	FRONT DOOR UNIT	1	
339(4)		VMP1058	FRAME ANGLE	1	
343(4)		VKU0246	BOTTOM PLATE	1	
344(4)		VHD0059	BOTTOM SCREW	8	
400(5)		VQT2493	OPERATING INSTRUCTIONS	1	(ENGLISH/GERMAN/
					FRENCH)<!>
400(5)		VQT2494	OPERATING INSTRUCTIONS	1	(RUSSIAN,POLISH)<!>
401(5)		VJA0376	DIN RF CABLE	1	
402(5)		VJA0231	AUDIO CABLE	2	
403(5)		VEQ0499	REMOTE CONTROL UNIT	1	
404(5)		VPN1693	CUSHION (L)	1	
405(5)		VPN1694	CUSHION (R)	1	
406(5)		VPG3782	PACKING CASE	1	
407(5)		VJA0449	AC CORD	1	<!>
412(5)		VPN1822	ACCESSORIES CUSHION	1	
414(5)		VPK0688	ACCESSORIES PACKING CASE	1	
450(6)		VYK1441	TOP CASE UNIT	1	
451(6)		VKM0843	BOTTOM CASE	1	
452(6)		VYF0824	BATTERY COVER	1	
453(6)		VKW0758	IR WINDOW	1	
454(6)		VSP0247	RUBBER CONTACT	1	
455(6)		VGU3406	POWER BUTTON	1	
456(6)		VGU3407	REC BUTTON (RED)	1	
457(6)		VGU3408	REC BUTTON (BLACK)	1	
458(6)		VGU3403	STILL BUTTON	1	
459(6)		VGU3410	STOP BUTTON	1	
460(6)		VGU3404	STILL ADV BUTTON	1	
461(6)		VGU3412	REW BUTTON	1	
462(6)		VGU3409	PLAY BUTTON	1	
463(6)		VGU3411	FF BUTTON	1	
464(6)		VJR0229	ELECTRODE (COMMON)	1	
465(6)		VGU2274	CH BUTTON	4	
466(6)		VGU3628	TIMER BUTTON	1	
			JIG		
		VFJ8125H3F	VHS-ALIGNMENT TAPE (PAL)	1	
		VFK0335	RETAINING RING REMOVER	1	
			(3mm/4mm)		
		VFK0387	TENSION POST ADJUSTMENT	1	
			PLATE		
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0190	REEL TABLE HEIGHT GAUGE	1	
		VFK0328	H-POSITION ADJ.	1	
			SCREWDRIVER		
		VFK0329	POST ADJUSTMENT SCREWDRIVER	1	
		VFK62	FAN TYPE TENSION GAUGE	1	
		VFK0326	HEX WRENCH SET	1	
		VFK0132	BACK TENSION METER	1	
		VFK0343	CHECK LIGHT	1	
		VFK0344	HEIGHT ADJUSTMENT JIG	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLYTONE GREASE	1	
		VFK0283	SERVICE ALIGNMENT TOOL KIT	1	
		VFK0341	UPPER CYLINDER REMOVER	1	

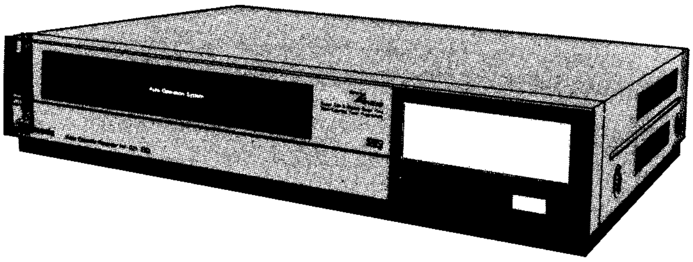
ORDER NO. VRD8701104

Service Manual

General Description
Adjustment Procedures
Block / Schematic Diagrams
Exploded Views / Parts List

Video Cassette Recorder
Panasonic VHS PAL HQ

NV-G21 EG B EO EV



SPECIFICATIONS

ITEM	SPECIFICATION	
POWER	SOURCE: 220V 50/60Hz (NV-G21EG/EO/EV) 240V 50/60Hz (NV-G21B)	
	CONSUMPTION: 25 watts (NV-G21EG/EO/EV) 22 watts (NV-G21B)	
RECORDING SYSTEM	2 rotary heads, helical scanning system	
	PAL	
TV TUNER SYSTEM	NV-G21EG	VHF: CH E2 ~ CH S41 (PAL/SECAM B) 75Ω unbalanced UHF: CH 21 ~ CH 69 (PAL/SECAM G) 75Ω unbalanced
	NV-G21B	UHF: CH 21 ~ CH 69 (PAL I) 75Ω unbalanced
	NV-G21EO/EV	VHF: CH E2 ~ CH U10 (PAL B) 75Ω unbalanced UHF: CH 21 ~ CH 69 (PAL G) 75Ω unbalanced
RF OUT SYSTEM	UHF: CH36 ± 4 (PAL G) 73^{+2}_{-3} dBμ, 75Ω terminated (NV-G21EG) CH36 ± 4 (PAL I) 73 ± 3 dBμ, 75Ω terminated (NV-G21B) CH36 ± 4 (PAL G) 70^{+2}_{-3} dBμ, 75Ω terminated (NV-G21EO/EV)	
VIDEO	HEADS: 4 rotary heads 1 pair for recording and playback (L-R heads) 1 pair for video trick play with L′ and R′ heads (field still and fine slow)	
	INPUT: VIDEO IN CONNECTOR (BNC type) 1.0Vp-p, 75Ω terminated EURO AV Connector (21 pin) 1.0Vp-p, 75Ω terminated (NV-G21EG/EO/EV)	

ITEM	SPECIFICATION
VIDEO	OUTPUT: VIDEO OUT Connector (BNC type) 1.0Vp-p, 75Ω terminated (NV-G21B) EURO AV Connector (21 pin) 1.0Vp-p, 75Ω terminated (NV-G21EG/EO/EV)
AUDIO	HEAD: 1 Stationary head
	INPUT: AUDIO IN Connector (Phono type) More than −10dBV (316mV), more than 50kΩ EURO AV Connector (21 pin) More than −10dBV (316mV), more than 10kΩ (NV-G21EG/EO/EV)
	OUTPUT: AUDIO OUT Connector (Phono type) −8dBV (400mV), Less than 1kΩ (NV-G21B) EURO AV Connector (21 pin) −6dBV (500mV), Less than 1kΩ (NV-G21EG/EO/EV)
TAPE FORMAT	VHS Cassette tape (Tape width 12.7mm)
TAPE SPEED	23.39mm/s Record/Playback Time: 4 hours with 240min. type tape FF/REW Time 5.5min. with 180min. type tape
DIMENSIONS	380(W) × 82(H) × 342(D) mm
WEIGHT	4.9kg
STANDARD ACCESSORIES	1 PC. DIN-RF Cable 1 PC. Infra-red remote controler 1 PC. Digital Scanner 1 PC. Programme Sheet 1 PC. AC Cord
OPTIONAL ACCESSORIES	VPS Decoder, VW-VPS1 (NV-G21EO)

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

INTRODUCTION

This service manual contains technical information which will allow service technician to understand and service this model.
Section 1 presents you with some general information of features and controls, enabling you to become familiar with each function.
Section 2 contributes to your mechanical and electrical adjustment as well disassembly and replacement procedures.
In the case of very common information relating to other models like mechanical adjustments, please refer to each service manual.
Section 3 contains block diagrams which offers you information for checking and understanding each circuit. Schematic diagrams which give you detailed information such as waveforms, voltage data, function e.t.c. ...
Section 4 contains exploded views and parts list.
Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

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Technical Information

Subject: How To Make Easier Servicing

1. How To Install the VPS (VW-VPS1) C.B.A. (NV-G21EO)

For the installation of the VPS-Decoder, it has to be paid attention to the following points.

❶ Make sure that the VTR mains cord is disconnected from the mains outlet.

❷ Cut the jumper wire (W17) at both ends.

❸ Unfasten the two screws and remove the top panel.

❹ Insert the VPS Decoder into the slot, fix it with the screw, and attach the two connecotors.

❺ Reassemble the VTR.

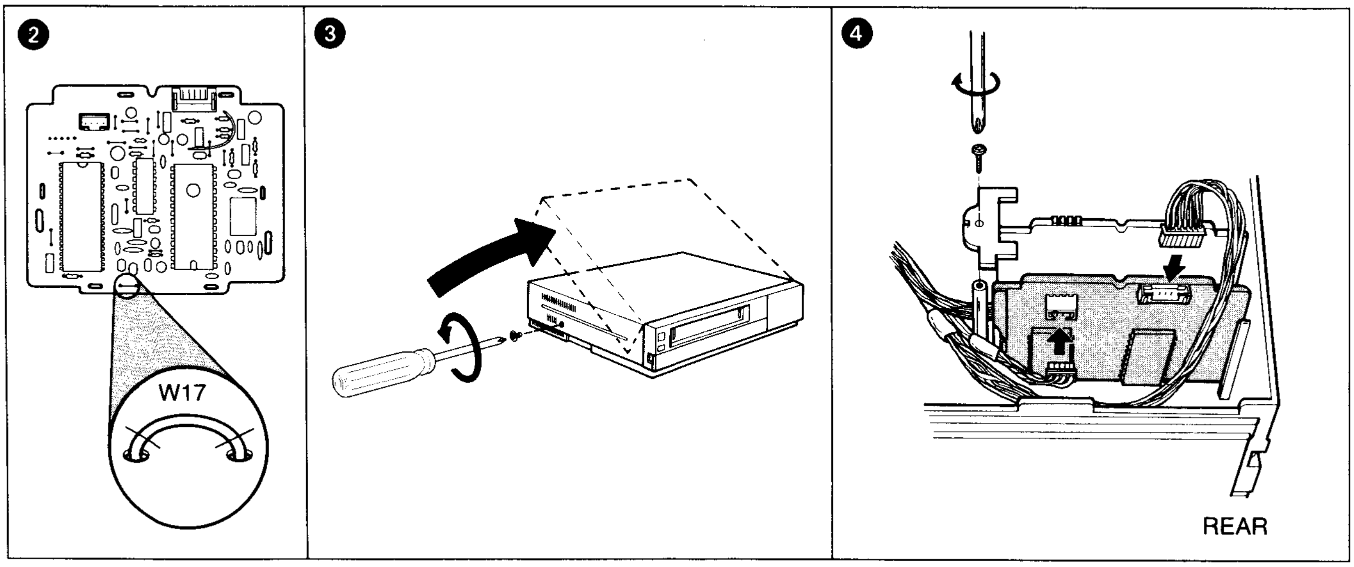


Fig. 1

2. How To Make Easier Servicing of A Packed Circuit

In case of the packed circuit such as Luminance/Chrominance , Servo , CH select and so on, you may check easily by standing Main C.B.A as shown in Fig. 2.

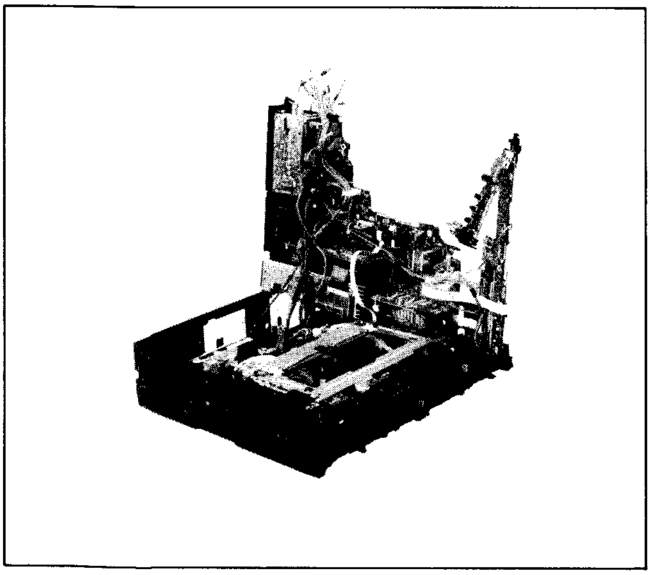
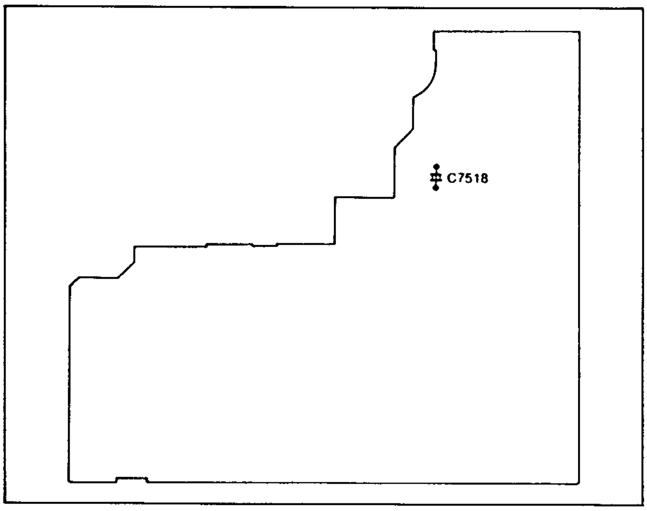


Fig. 2

3. How To Check or Replace The Timer Circuit

When checking or replacing the Timer circuit, the following steps should be followed to protect this circuit.

(1) Disconnect the AC mains.
(2) Make a short circuit at C7518 by connecting a wire to both lead wires of the C7518.
(3) Check or replace the parts.
(4) After checking or replacing the parts, remove the short circuit from C7518.



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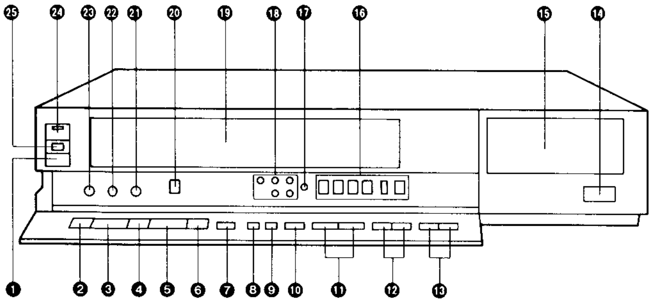
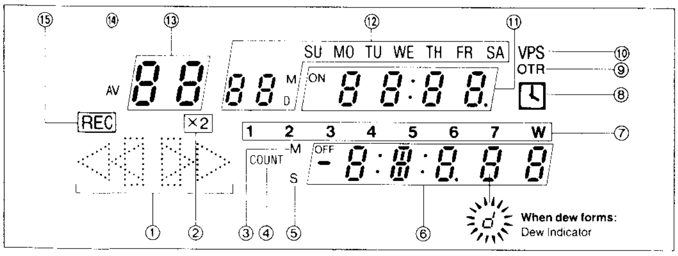
1-2. CONTROLS AND COMPONENTS

FRONT



1. **Eject Button (▲)**
2. **Rewind ◀◀/Review ⏪ Button**
3. **Play Button (▶)**
4. **Fast Forward ▶▶/Cue ⏩ Button**
5. **Stop Button (■)**
6. **Pause/Still Button (▮▮)**
7. **Record Button (●)**
8. **Reset Button**
9. **Memory/Search Lock Button**

   When this button is pressed once, the Memory Indicator "M" will light up, and when it is pressed one more time, the Search Indicator "S" will appear instead.
   When it is pressed a third time the Search Indicator "S" will disappear.
10. **Euro AV Button (NV-G21EO/EG/EV)**
11. **Channel Selection Up and Down Buttons**
12. **OTR On Button**
13. **OTR Off Button**
14. **Remote Control Receiver**
15. **Multi-Function Display**



① Tape Running Display
② Double Speed Indicator
③ Memory Indicator
④ Tape Counter Indicator
⑤ Search Lock Indicator
⑥ Tape Counter Display
⑦ Timer Programme Number
⑧ Timer Recording Indicator
⑨ OTR Indicator
⑩ VPS Indicator
⑪ Clock Display
⑫ Date Display
⑬ Channel Display
⑭ Euro AV Indicator (NV-G21EO/EG/EV)
⑮ Recording Indicator

16. **Timer Recording**
17. **Clock Button**
18. **Tuner Controls**
19. **Cassette Compartment**
20. **Edit Switch**

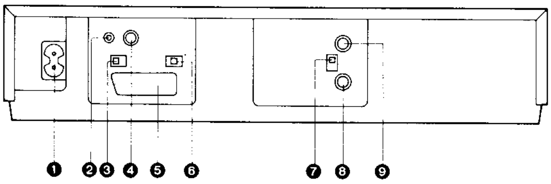
    Set this switch to "ON" When you make dubbing (copying).
    Set this switch to "OFF" when normal use.
21. **Picture Sharpness Control**

    With this control, the contours of the playback picture can be made sharper or softer.
22. **Slow Tracking Control**

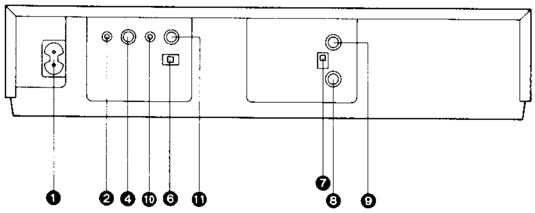
    When noise bars appear during Field still, Field Advance of Double Fine Slow playback, switch over to slow playback and turn the slow tracking control to the clockwise or counter clockwise to reduce the noise bars.
    Then resume the required mode.
    It may not be possible to eliminate the noise bars completely.
23. **Tracking Control**

    Tapes recorded on another machine may show noisy or a streaky playback picture,rotate this control slowly in either direction until the picture is clear.
    The control should normally be kept in the "FIX" position.
24. **VTR On/Off Switch with Indicator**
25. **Cassette-in Indicator**

REAR



(NV-G21EG/EO/EV)



(NV-G21B)

1. **AC Mains Lead Socket**

   Connect the AC Mains Lead to the AC Mains Socket of VTR and outlet.
2. **Audio Input Socket**
3. **DBS Switch (NV-G21EG)**

   When this button is pressed to on,tuned signal(through tuner) is connected to output of Euro AV terminal,then VTR is ready to recieve the video signal from input of Euro AV terminal.
4. **Video Input Socket**

SECTION 1
GENERAL DESCRIPTIONS

1-1. FEATURES

1. Slim Design and Front Loading System

This highly functional design allows loading the video cassette from the front, thus minimizing the space required for the placement.

2. Multi-Function Display

Whenever an operation button is pressed, the activated function is immediately indicated on this easy–to–see display. It shows you at a glance, in what operation mode the VTR is functioning.

3. Programmable Remote Controller (Infra-red)

In addition to letting you control all major VTR functions,this handy Remote Controller also let you program timer recordings from the comfort of your armchair.

4. Picture Sharpness Control

With this control, the contours of the playback picture can be made sharper or softer.

5. VPS (Video Programme System)

The Video Programme System is an extremely convenient system which assures that the TV programmes you have programmed for timer recording will be record exactly from beginning to end,even if the actual broadcasting time is different from the scheduled time.
NV–G21EO:
The VPS function becomes operative when the VTR is equipped with the optional VPS decoder (VW–VPS1).
Refer to Technical Information of this Service Manual for how to equip the VPS decoder.

6. Super Still, Super Still Advance and Super Fine Slow Playback

Super Still,Super Still Advance and Double Fine Slow Playback are possible with superb picture quality with minimum noise and jitter.

7. Super OTR Function (One-Touch Timer Recording)

This convenient function makes it possible to easily programme the VTR for recording of TV programmes with immediate start or with start within 24 hours and with the starting time and ending time precisely to the minute, and the VTR will automatically turn itself off when the recording ends.

8. Auto Operation

This VTR automatically turns itself on when a video cassette is inserted even if it was turned off. When the tab of the inserted cassette is broken out, playback will start automatically. Also, even if the VTR is off, when the Eject Button is pressed, it automatically turns itself to eject the cassette tape and turns itself off again.
When a video cassette tape with a broken out tab is inserted and the VTR is switched over to recording, OTR and timer recording, the cassette tape will be automatically ejected.
When the tape reaches its end (except during OTR and timer recording), it will automatically rewind to the beginning.

9. 1-Month Calender Timer

The clock/timer of the NV–G21 is programmed with the calendar up to the end of 2001. Therefore it knows exactly what day of the week it is on any given date. Programming of as many as 8 timer recordings is possible up to one month in advance.
In addition, easy programming of the timer recordings is possible both on the VTR itself and via the remote control unit.

10. Real Time Counter

The new Real Time Counter is a great improvement over the approximate counter systems of conventional VTRs. It gives you an exact reading of the elapsed tape time in hours, minutes and seconds, and makes it easy to calculate the tape time left on a cassette.

11. Reception of up to 32 TV Stations

The built–in tuner is this video recorder allows pretuning of 32 TV stations. So this VTR can accommodate virtually any increase in available TV programmes in the future.

12. HQ (High Quality) Picture System

Video recorders carrying the HQ symbol mark feature the new VHS High Quality Picture System. This system assures complete compatibility with VTRs that use the conventional VHS system.

13. Timer Programming by Bar Code Reading

Timer recordings are easily programmed by using the Degital Scanner, the pen–shaped reader to read bar codes containing the channel number, day, start time, and end time from the special data sheet, and then transferring the information to the VTR, which automatically enters the timer standby mode.

5. **Euro AV Socket (NV-G21EG/EO/EV)**

6. **Colour Mode/Test Signal Switch**

   When Colour Mode/Test signal switch is selected to "TEST" , two vertical lines (Test signal) are generated from RF out.
   Tune the TV set to UHF approx.Channel 36 so that Test signal can be seen, when colour Mode/Test signal switch is selected to "AUTO" position, TV set is ready to receive the RF output signal from the VTR.
   * If, during recording or playback, the colour is not satisfactory, it can be stabilized by setting colour Mode/Test signal switch to "COLOUR".

7. **RF Signal Level Switch**

   Used to attenuate the reception of the VHF and/or UHF antenna signals.

   If the reception is normal, set to "HIGH".
   If the signal is strong, set to "LOW".

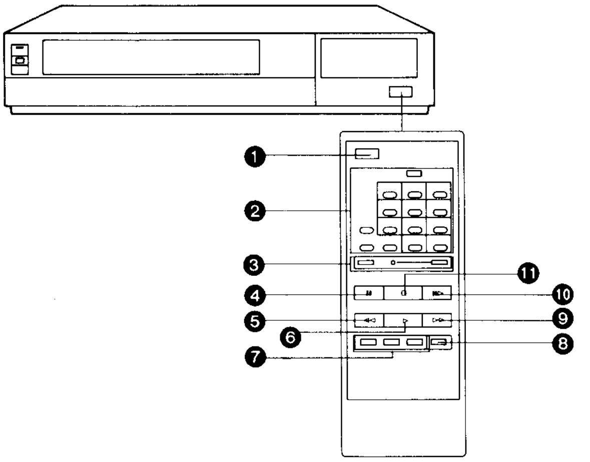
8. **RF Input Socket**

9. **RF Output Socket**

10. **Audio Output Socket (NV-G21B)**

11. **Video Output Socket (NV-G21B)**

INFRA-RED REMOTE CONTROLLER



1. **VTR On/Off Switch**

   For turning the VTR on and off.

2. **Timer Recording & Programme Position Selector Buttons**

3. **Record Buttons (●)**

   To start recording, press the both buttons simultaneously.

4. **Pause/Still Button (▮▮)**

5. **Rewind ◀◀/Review [◀◀] Button**

   When this button is kept pressed during playback, the VTR changes over to the Review playback mode.

6. **Play Button (▶)**

7. **Slow Button (▮▶)**

   Press the Slow Button for slow-motion playback at 1/10 of normal speed. The slow playback speed can be varied between 1/30 and 1/5 of normal speed by using the "+" and "−" Buttons.

Note:

If the VTR is left in the slow playback mode for more than 10 minutes, the VTR will automatically switch over to the stop mode, to protect the tape and the video heads.
* Adjust the Slow Tracking Control if necessary.

8. **Double Speed Playback Button (X2)**

9. **Fast Forward ▶▶/Cue [▶▶] Button**

   When this button is kept pressed during playback, the VTR changes over to the Cue playback mode.

10. **Still Advance Button (▮▮▶)**

11. **Stop Button (■)**

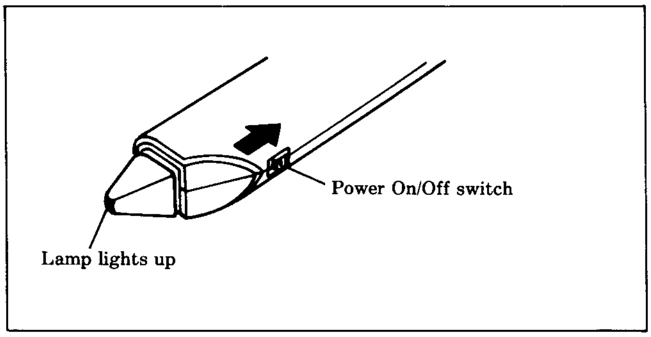
Note:
* The infra-red beam should be transmitted directly at the Infra-red Remote Control Receiver on the front of the VTR.
* Direct sunlight may interfere with the beam.
* The lightsensing angle of the Infra-red Remote Control Receiver window in the VTR is about 60 degrees.
* The unit should be used within a range of about 7 meters from the front of the VTR.

DIGITAL SCANNER

This Digital Scanner lets you programme timer recording by tracing the corresponding bar codes on the supplied Programming Sheet and then transferring the data to the VTR.

< HOW TO OPERATE THE DIGITAL SCANNER >

1. Set power ON/OFF switch to "ON".



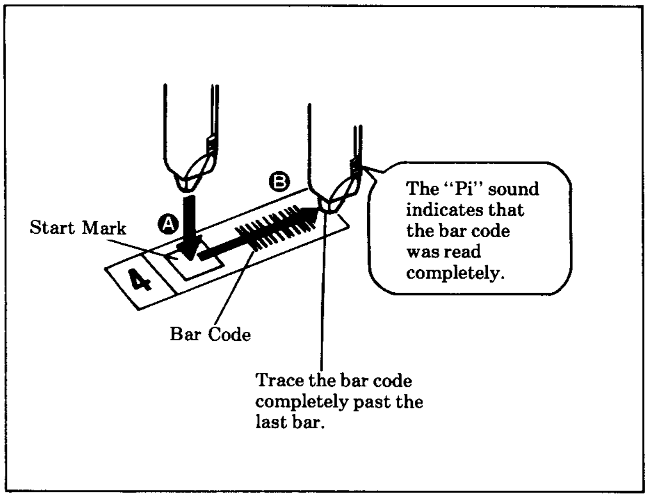
Note1:

If no operation is performed for more than 25 seconds, the Scanner will automatically switch over for power-saving and the lamp will go off.(In case that bar codes have already been read but not yet transmitted to VTR, the data will be cancelled)

2. Read the bar codes for the desired programme (channel, day, start time, and end time)

   1) Place the Digital Scanner vertically on the start mark.

   2) Trace the bar codes quickly in dirrection of arrow as shown below.
   When Digital Scanner has read bar codes completely, it gives you "Pi" sound for confirmation.


Start Mark
A
B
The "Pi" sound indicates that the bar code was read completely.
Bar Code
Trace the bar code completely past the last bar.

Note2:

(1) When there is no "Pi" sound, the reading of the bar codes is incomplete. Trace the bar codes again.

(2) Since reading order is free, Digital Scanner can trace from any items (for example day first and end time next, start time and channel last or start time first and channel next, end time and day last) anyway, when 4 items (day, channel, start time and end time) have been read, it gives you "Pi–Pi–Pi–Pi–Piiii" sound that mean Scanner is now ready for data transmission.

(3) If the bar codes are traced slowly, it cannot read correctly.

(4) If more than one bar code is read in the same group, only last read will be effective.

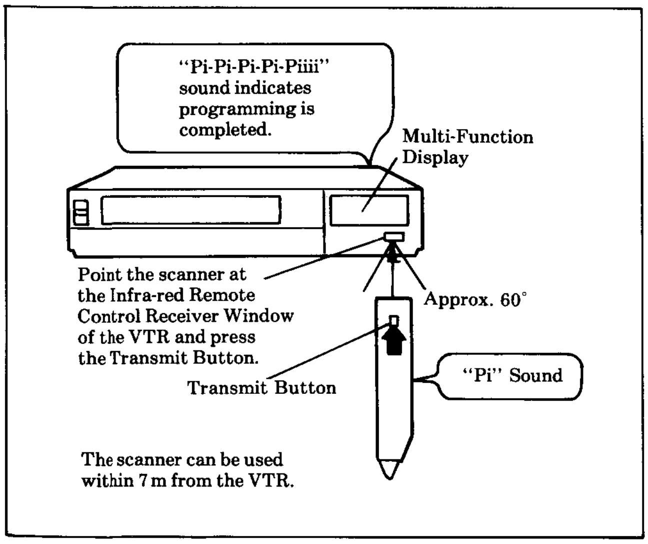
3. Transmit the data to VTR

1) Aim the transmiter window to reciever window of VTR as shown below.

2) Keep pressing the Transmit Button.

3) "Pi–Pi–Pi–Piiii" sound from VTR indicates transmission is completed.

4) Confirm the programme data on Multi–Function display of VTR.


"Pi-Pi-Pi-Pi-Piiii" sound indicates programming is completed.
Multi-Function Display
Point the scanner at the Infra-red Remote Control Receiver Window of the VTR and press the Transmit Button.
Approx. 60°
Transmit Button
"Pi" Sound
The scanner can be used within 7 m from the VTR.

Note3:

(1) If the transmission was not received correctly, warning sound("Pi–Pi,Pi–Pi") will be heard you from VTR. In this case, try transmission again.

(2) The programming will be memorized on the next, lower unoccupied timer programme number area 8~1 in the timer IC.
If all programme numbers are occupied, the warning sound "Pi–Pi,Pi–Pi" from VTR will warn you the programming cannot be made. In other words, you can make 8 programmes.

(3) When the transmission is completed, the VTR will automatically be placed onto the timer recording standby condition and power will be turned off.

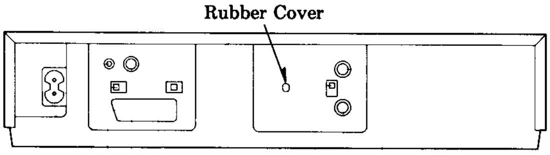
(4) The transmission is possible when the VTR is turned on but is not in any of the recording or playback operation modes.
It is also possible when the VTR is in the timer recording standby mode(indication is lit).

(5) When you want to check the programme which has memorized, trace the "CHECK" bar codes on programming sheet and transmit to VTR.
You will see programmed data on the Multi–Function display of VTR.

HOW TO ADJUST THE RF CONVERTER FREQUENCY

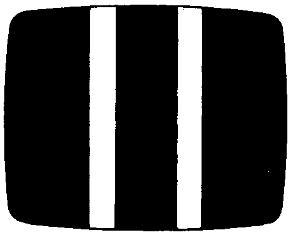
If there is TV programme (broadcasting) on RF converter output channel, Playback Picture from RF converter might be interfered by TV channel (same as RF converter channel).
In order to avoid this, RF converter channel (output frequency) can be shifted by turning adjustment volume on RF converter.

1. Adjust the TV channel to no TV programme (broadcasting) portion within UHF 36 +– 4ch.
2. Set the colour Mode/Test signal switch for "TEST".
3. Remove the rubber cover of RF Converter on rear side and Put the adjustment screw driver to volume.


Rubber Cover

(Rear Side)

4. Turn the volume of RF converter so that Test signal (2 vertical lines) Can be seen on TV screen clearly as shown below.



SECTION 2
ADJUSTMENT PROCEDURES

2-1. MECHANICAL ADJUSTMENT PROCEDURES

This Mechanical Chassis of this model NV-G21 is the same as the G Mechanical Chassis.
Therefore please refer to the Service Manual G Mechanical Chassis (Order No. VRD8701105).

2-2. DISASSEMBLY METHOD

2-2-1. DISASSEMBLY FLOWCHART

This flowchart indicates disassembly steps of the cabinet parts and the Circuit Boards in order to find the necessary items for servicing.
When reassembling, perform the steps in the reverse order.

Note:
When removing the Front Panel, be careful to avoid any damages for the locking portions of the panel.

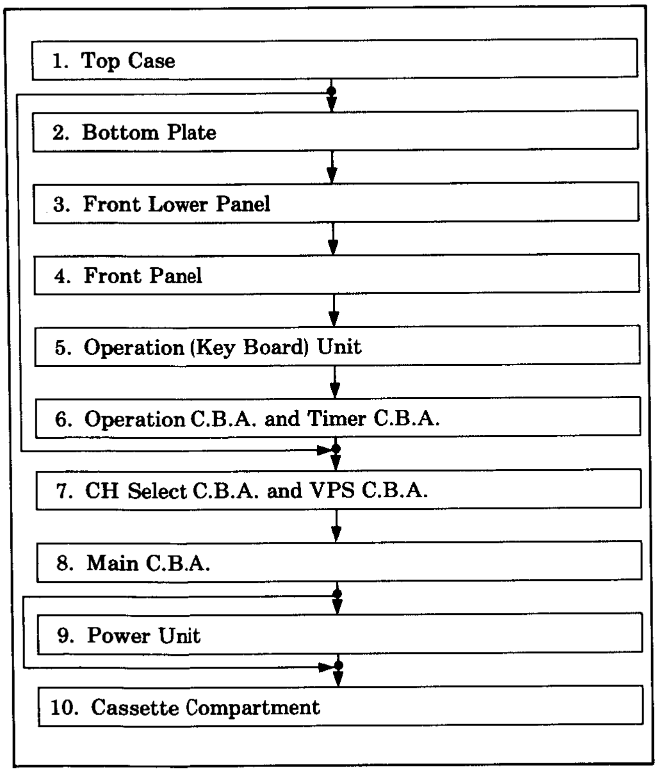

1. Top Case
2. Bottom Plate
3. Front Lower Panel
4. Front Panel
5. Operation (Key Board) Unit
6. Operation C.B.A. and Timer C.B.A.
7. CH Select C.B.A. and VPS C.B.A.
8. Main C.B.A.
9. Power Unit
10. Cassette Compartment

Fig. D1

2-2-2. DETAIL OF DISASSEMBLY METHOD

1. Removal of the Top Case

Remove the screws (A) (EG: 4 screws, EO/EV/B: 2 screws), then carefully lift the rear of the Top Case to remove.

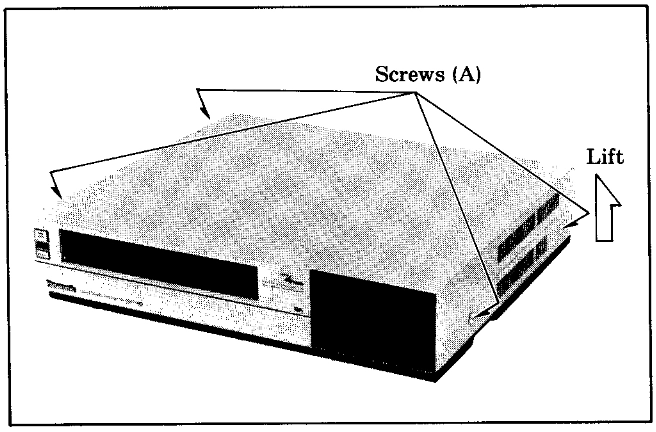

Screws (A)
Lift

Fig. D2

2. Removal of the Bottom Plate

Place the deck upside down so that the bottom side faces upward.
Then remove the screws (B) (EG: 6 screws, EO/EV/B: 4 screws).

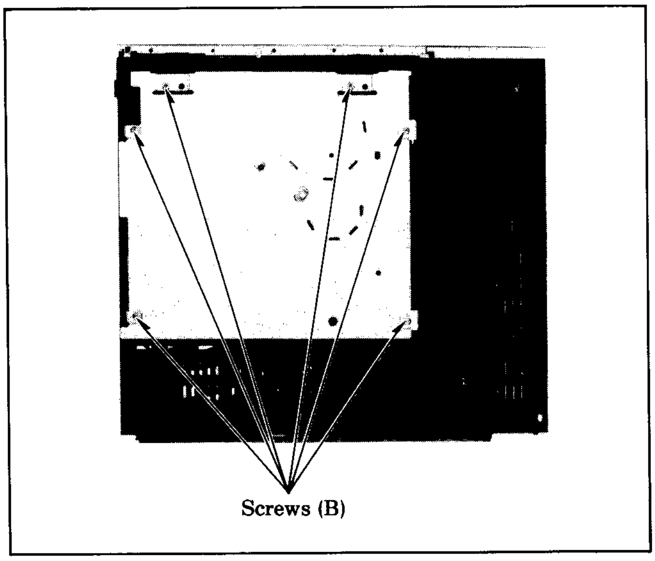


Fig. D3

Note:
Place the cushion under the deck to avoid any damages.

3. Removal of the Front Lower Panel.

   Place the deck up side down so that the bottom side faces upward.
   Then remove the 1 screw (C) and unlock the 3 locking portions (D).

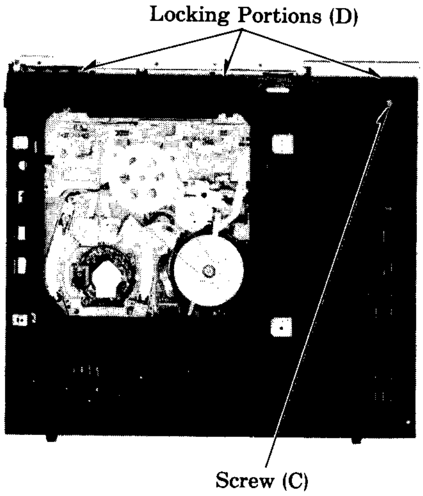

Locking Portions (D)
Screw (C)

Fig. D4

Note:
   Place the cushion under the deck to avoid any damages.

4. Removal of the Front Panel

   Open the Operation (key Board) Unit and remove the 1 screw (E) and unlock the 5 locking portions (F).
   Then hold the top portion of the panel and turn it toward the front side of the deck to remove.

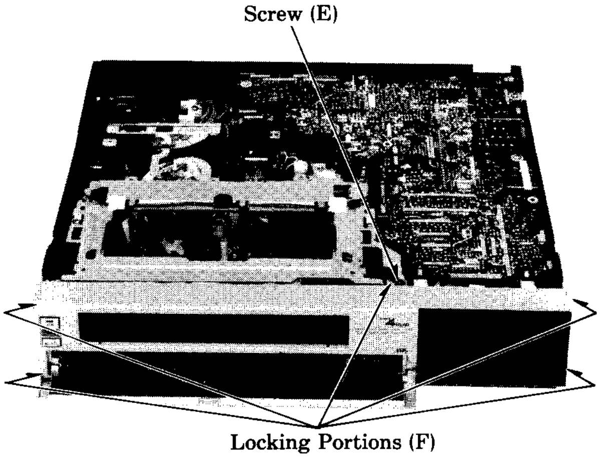

Screw (E)
Locking Portions (F)

Fig. D5

5. Removal of the Operation (key Board) Unit

   Remove the 2 screws (G) and unlock the 2 locking portions (H).
   Unlock the connector P7502 and remove the flexible wire.
   Then carefully remove the Operation (key Board) Unit.

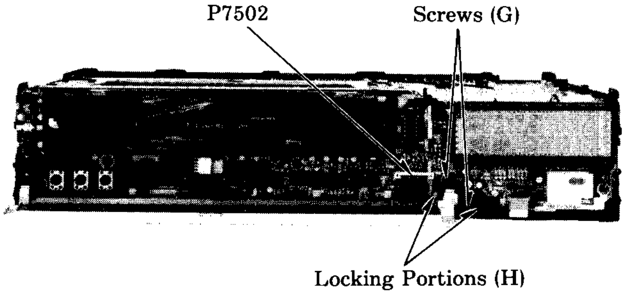

P7502
Screws (G)
Locking Portions (H)

Fig. D6

6. Removal of the Operation C.B.A. and Timer C.B.A.

   Remove the 7 screws (I) and unlock the 3 locking portions (J).

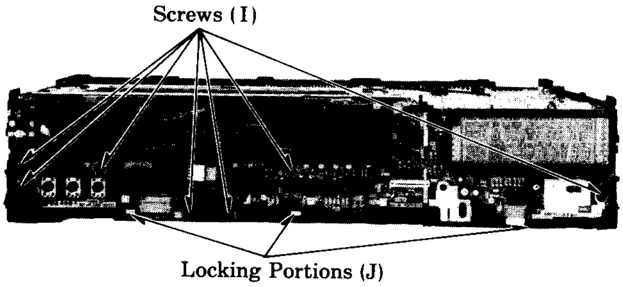

Screws (I)
Locking Portions (J)

Fig. D7

7. Removal of the VPS C.B.A(EG/EV/*EO) and CH SELECT C.B.A.

   Remove the 1 screw (K) and C.B. holder, then remove the CH Select C.B.A. and VPS C.B.A..

Note:
   In case of EO model, VPS C.B.A. is supplied as optional accessory (VW-VPS1).

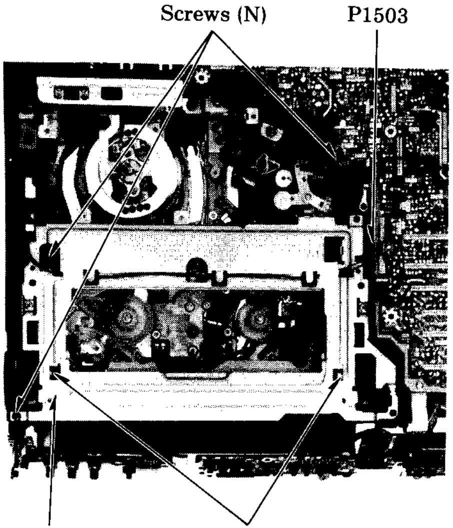

Screws (N)
P1503
Cassette Unit
Screws (O)

Fig. D12

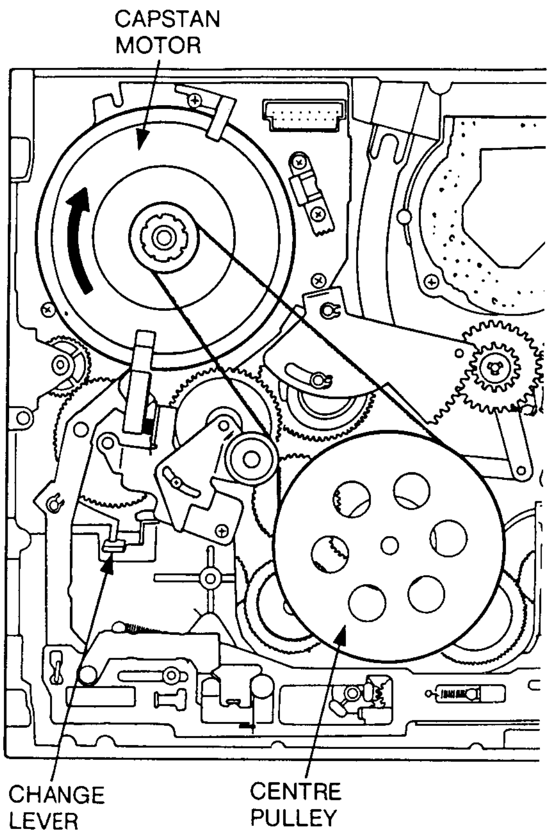

CAPSTAN MOTOR
CHANGE LEVER
CENTRE PULLEY

Fig. D13

Note1:

When reinstalling the Cassette Compartment, mechanical adjustment (alignment) must be performed for correct working , refer to Service Manual (G Mechanical chassis) (order No. VRD8701105, item 3–10 Reinstallation of Cassette Compartment for mechanical adjustment (alignment).

2-3. REPLACEMENT OF THE CYLINDER UNIT

2-3-1. Replacement of the D.D Cylinder Unit

Work with extreme care when removing or replacing the D.D. cylinder unit.
Do not touch the video head during servicing.

1. Remove the 2 screws (P) to take the Head Amp Pack Out.
2. Remove the 1 screw (Q) to take the Earth Holder Unit Out.
3. Disconnect the 5P connector on the cylinder drive C.B.A.

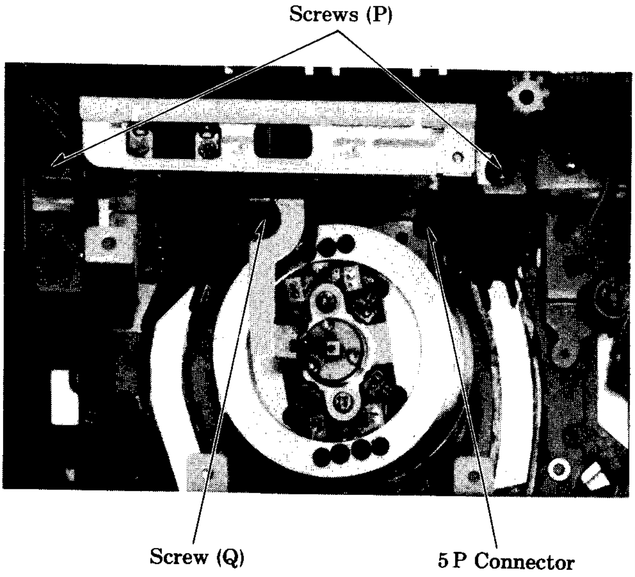

Screws (P)
Screw (Q)
5 P Connector

Fig. D14

4. Remove the 3 screws (R) to take the D.D. cylinder unit (with the cylinder drive C.B.A.) out.

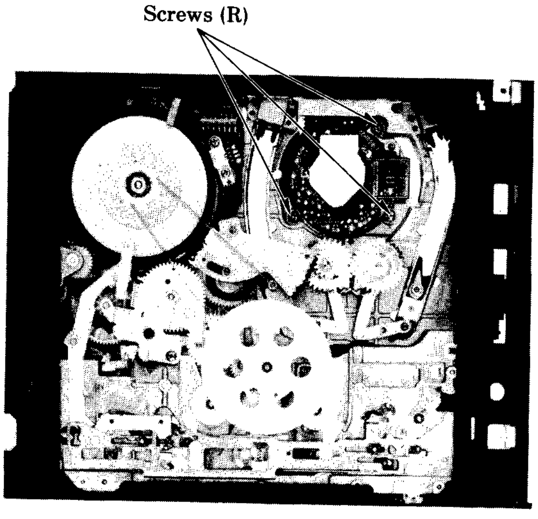


Fig. D15

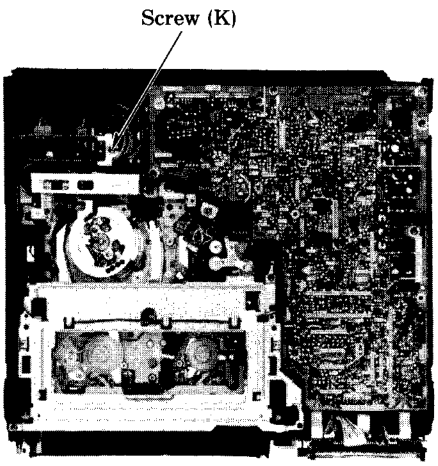


Fig. D8

8. Removal of the Main C.B.A.

Remove the 8 screws (L) and take out the Main C.B.A. Putting it up right position on the flame can be available as shown in Fig.D10.

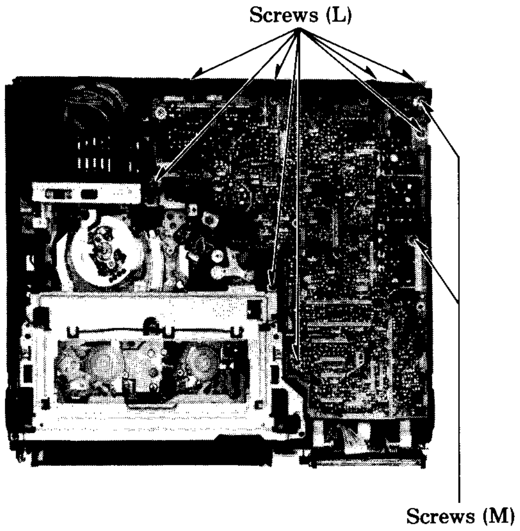


Fig. D9

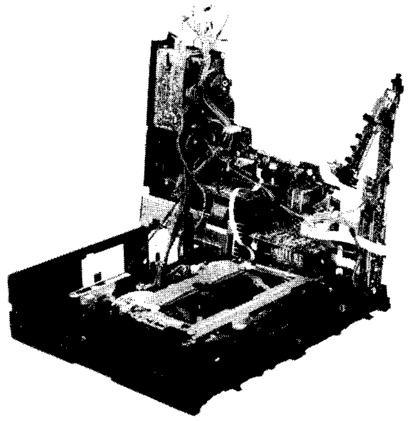


Fig. D10

9. Removal of Power Unit

Remove the 2 screws (M) and take it out from the Main C.B.A.as shown in Fig.D9 and D11.
Remove the shield case then checking can be performed.

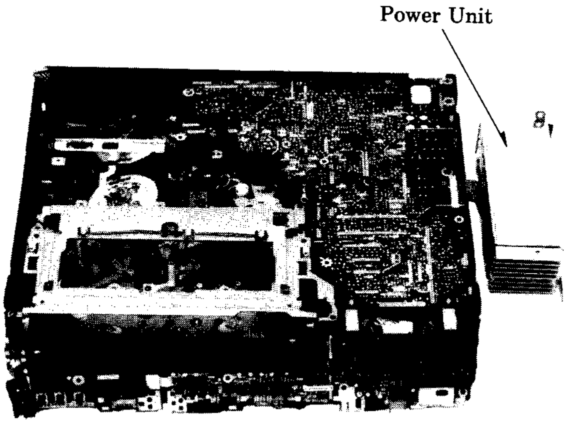


Fig. D11

10. Removal of Cassette Compartment

Remove the 3 screws (N).
Slide the cassette holder until appearing 2 screws (O) by turning (clockwise) the Capstan Rotor Unit (located in the bottom side as shown in Fig.D13) and remove the 2 screws (O).
Remove the flexible cable from connector P1503 mounted on Take-up Photo Tr C.B.A. ,then carefully pull out the Cassette Compartment.

Note:
Since there is very little clearance between the D.D. cylinder unit and the chassis, remove the D.D. cylinder unit gently and carefully.

5. Reinstall the new D.D.Cylinder Unit, tighten the 3 screws (R) and reinstall the Earth Holder Unit, tighten the 1 screw (Q).
   Then re-connect the Head Amp pack and 5P connector and tighten 2 screws (P).

Note:
(1) Gently rub the video head in direction of tape travel with Head cleaning stick.
(2) After replacement, confirm the performance. If any further maintenance is required, perform "TAPE INTER-CHANGE ABILITY ADJUSTMENT".

2-3-2. Replacement of the Cylinder Drive C.B.A.

1. Remove the D.D. cylinder unit referring the Item 2-3-1.
2. Place the D.D. cylinder unit upside down.
3. Unsolder the soldered portion (S) for shield case to take it out.
4. Unsolder the 14 soldered portions (T) indicated by an arrow mark (including 6 soldered portions inside of shield case).
5. Remove the 2 screws (U) to remove the cylinder drive C.B.A. unit.

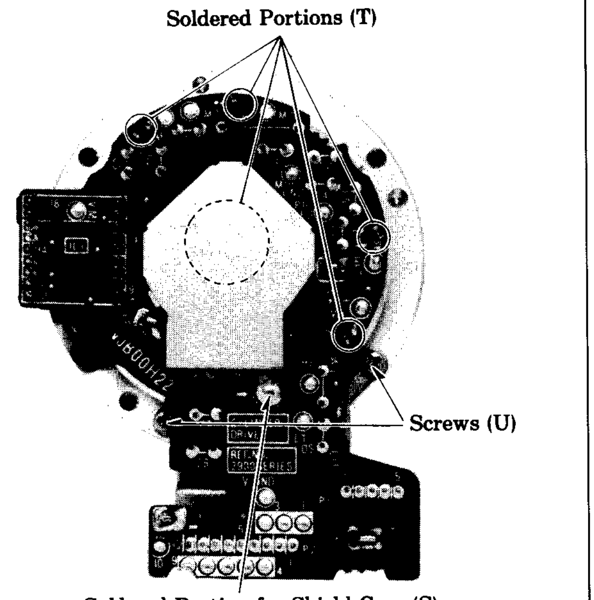


Fig. D16

6. Reinstalling is just reverse way of above procedures.

2-3-3. Replacement of the Cylinder Drive IC

1. Remove the Cylinder Drive C.B.A. as item 2-3-2.
2. Remove the screw (T) to take the heat sink plate out.
3. Unsolder the 18 soldered portions of the Cylinder Drive IC to take it out.
4. Reinstall the New IC with the care of Pins location.
5. Re-solder the 18 pins of the Cylinder Drive IC.
6. Reinstall the Cylinder Drive C.B.A. to the D.D. Cylinder Unit.

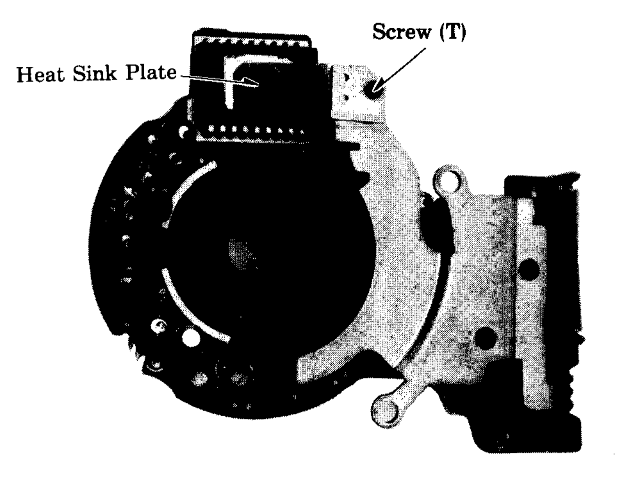


Fig. D17

2-3-4. Replacement of the Upper Cylinder Unit

1. Remove two screws as shown below.
2. Unsolder 8 soldered portions indicated by arrows on the C. Board.
3. Remove the Upper Cylinder Unit by lifting it upward.

Note:
Soldered portion can be easily removed by using solder sucking wire, etc.

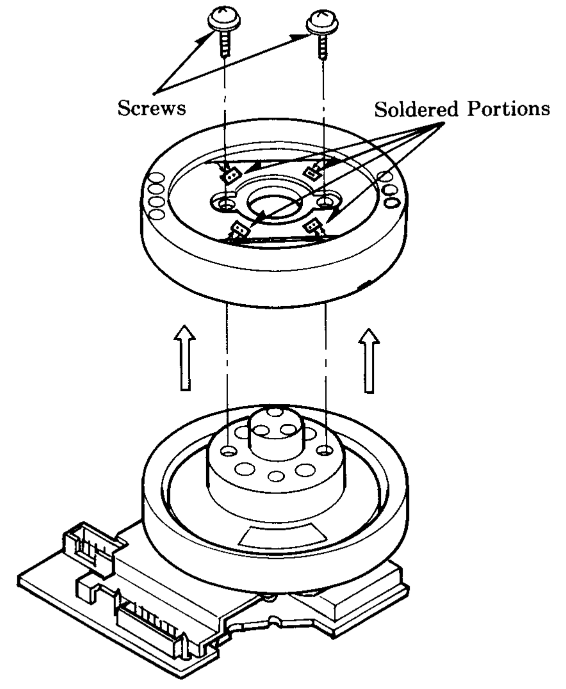


Fig. D18

4. The upper cylinder unit can be reinstalled by reversing the removal procedure, however, when the upper cylinder is reinstalling, be extremely carefull so that white portion of C. Board of the upper cylinder correctly matches the white portion of the bottom cylinder as shown below.

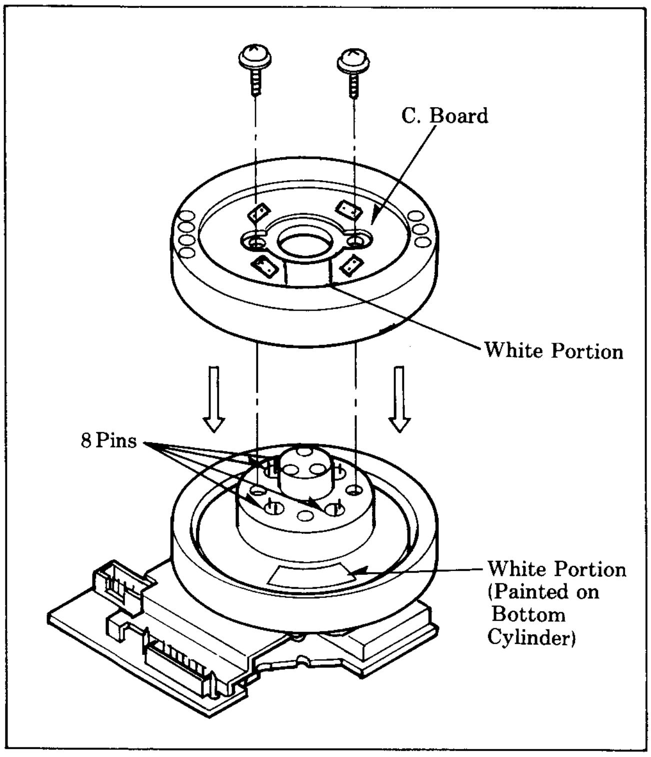

C. Board
White Portion
8 Pins
White Portion (Painted on Bottom Cylinder)

Fig. D19

Note:

1). If the Upper Cylinder Unit is reversely installed, no colour would appear when playing back a pre-recorded tape.
2). Do not loosen the 3 small screws on the top of the cylinder as shown below .
If these 3 screws are loosend, Cylinder motor is broken and not restored.

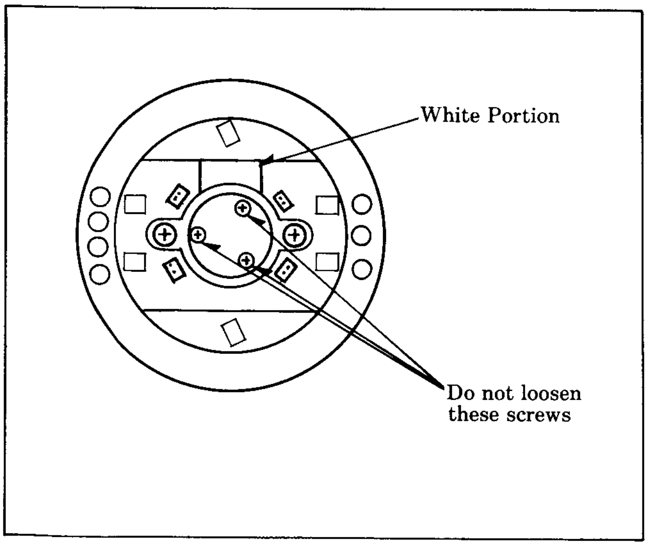

White Portion
Do not loosen these screws

Fig. D20

2-4. ELECTRICAL ADJUSTMENT PROCEDURES

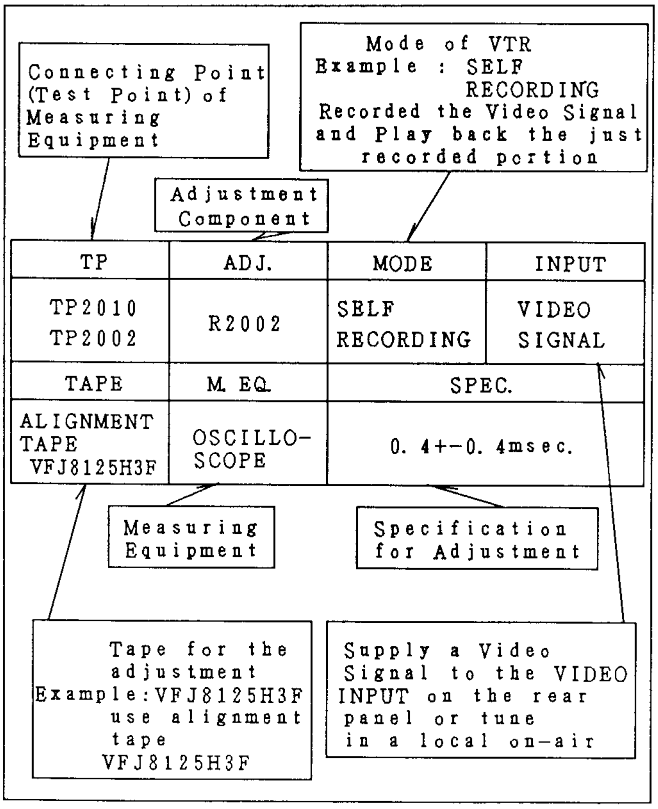
This section provides complete electrical adjustment procedures which may be required for electronic circuits of VHS video Cassette Recorders NV-G21.

2-4-1. TEST EQUIPMENTS

To perform the electrical adjustments completely, following equipments are required.

1. VTVM (Vacuum Tube Volt Meter) or DVM (Digital Volt Meter)
   Voltage Range: 0.001～50V
2. Dual-Trace Oscilloscope
   Voltage range: 0.005～50V/div.
   Frequency Range: DC～30MHz
   Probes: 10:1
3. Frequency counter
   Frequency Range: 0～10MHz
4. Signal Generator (Sinewave)
   Frequency Range: 0～500KHz
5. Video Sweep Generator
   Frequency Range: 0～10MHz
6. Colour Monitor TV
7. Plaastic Tip Driver
8. VHS Alignment Tape (VFJ8125H3F)
9. Pattern Generator

2-4-2. HOW TO READ THE ADJUSTMENT PROCEDURES


Connecting Point (Test Point) of Measuring Equipment
Mode of VTR Example : SELF RECORDING Recorded the Video Signal and Play back the just recorded portion
Adjustment Component

TP	ADJ.	MODE	INPUT
TP2010 TP2002	R2002	SELF RECORDING	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFJ8125H3F	OSCILLO-SCOPE	0. 4+-0. 4msec.	

Measuring Equipment
Specification for Adjustment
Tape for the adjustment Example:VFJ8125H3F use alignment tape VFJ8125H3F
Supply a Video Signal to the VIDEO INPUT on the rear panel or tune in a local on-air

Fig. E1

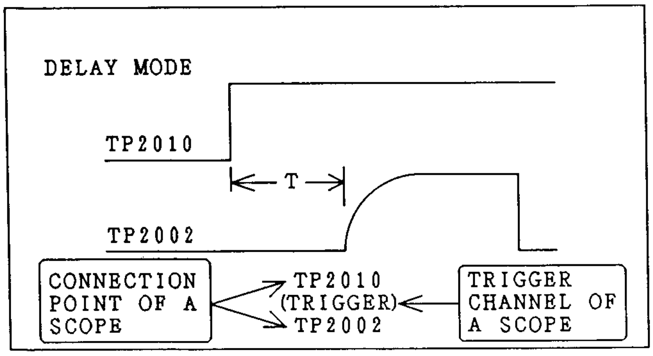

DELAY MODE
TP2010
T
TP2002
CONNECTION POINT OF A SCOPE
TP2010 (TRIGGER)
TP2002
TRIGGER CHANNEL OF A SCOPE

Fig. E2

Note:
Before the electrical adjustment, set the VHS VTR as following conditions except for especial instructions in each adjustment item.

1) Tracking Control VR --- Centre FIX Position
2) Picture Sharpness VR --- Centre FIX Position
3) RF Signal Level SW --- HIGH
4) Colour Mode/Test Signal SW --- AUTO
5) Timer Record Button --- OFF
6) EDIT SW --- OFF
7) DBS SW --- OFF (NV-G21EG)
8) Oscilloscope-Probe --- 10:1 Probe

SERVO SECTION

2-4-3. PG SHIFTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2001 TP3002	VR2001	PLAY	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFJ8125H3F	OSCILLO-SCOPE	6.5±0.5H	

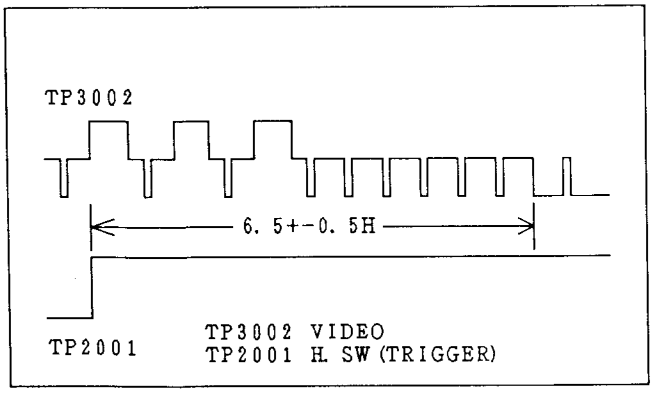

TP3002
6. 5+-0. 5H
TP2001
TP3002 VIDEO
TP2001 H. SW (TRIGGER)

Fig. E3

2-4-4. TRACKING FIX ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2001 TP2002	VR2002	SELF RECORDING	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	T=1.6±0.4msec.	

1. Set the TRACKING VR to the centre fix position.
2. Record video signal, then play back the just recorded portion.
3. Adjust VR2002 so that the period of "T" becomes 1.6 +- 0.4msec as shown in Fig.E4.

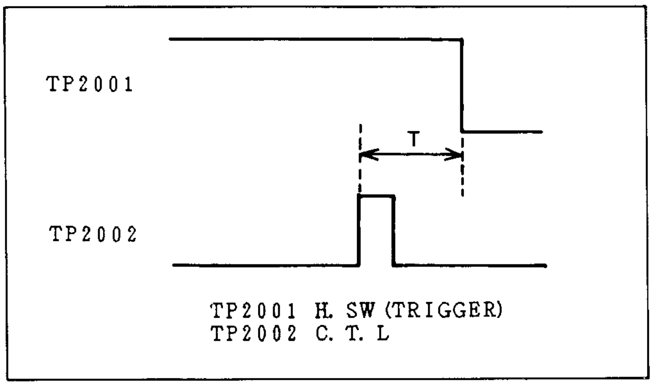

TP2001
T
TP2002
TP2001 H. SW (TRIGGER)
TP2002 C. T. L

Fig. E4

2-4-5. SLOW FREERUN ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2015	VR2013	STILL	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	FREQUENCY COUNTER	453±15Hz	

1. Record video signal and play back the tape just recorded.
   Then place the unit in STILL mode.
2. Connect the jumper wire between TP2025 and GND.
3. Connect the jumper wire between TP2026 and GND.
4. Connect the frequency counter to TP2015.
5. Adjust the VR2013 so that the frequency is 453 +- 15Hz.

2-4-6. SLOW TRACKING ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2020 TP2002	VR2011	SLOW	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	T=21.5±2.0msec.	

1. Set the SLOW TRACKING VR to centre fix position.
2. Record video signal and play back the just recorded portion. Then place the unit in SLOW mode.
3. Adjust VR2011 so that the period of "T" is 21.5 +- 2.0msec as shown in Fig. E5.

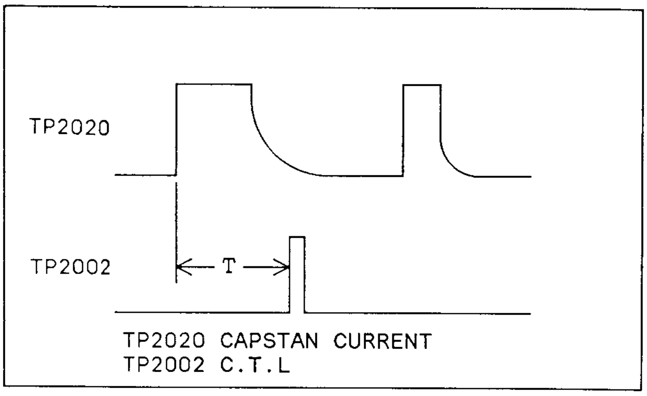


Fig. E5

2-4-7. ARTIFICIAL V-SYNC ADJUSTMENT

TP	ADJ.	MODE	INPUT
TV MONITOR	VR2010	SELF RECORDING	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	TV MONITOR		

1. Record video signal and play back the just recorded portion. Then place the unit in STILL mode.
2. Adjust VR2010 on the Servo pack (VEP02266A) so that the V–dancing does not appear on the TV monitor as shown in Fig. E6.
3. Confirm that the V–dancing does not appear in CUE and REVIEW modes. If the V–dancing is appeared on the TV monitor, this adjustment should be repeated again.

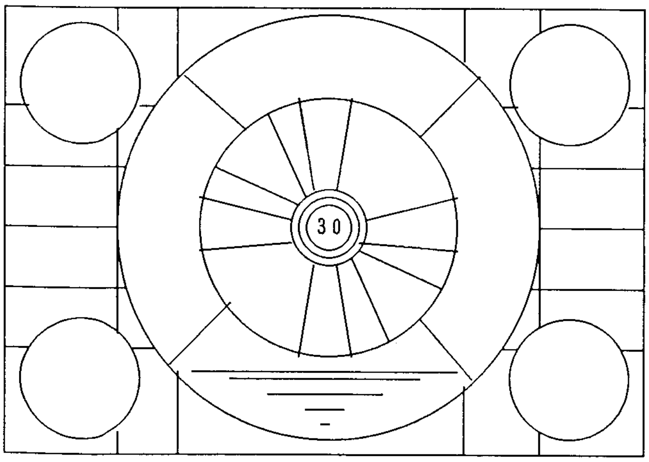


Fig. E6

LUMINANCE, CHROMINANCE & HEAD AMP SECTION

2-4-8. CHROMINANCE & LUMINANCE RECORDING CURRENT ADJUSTMENT

*** CHROMINANCE RECORDING CURRENT ADJ.**

TP	ADJ.	MODE	INPUT
TP503 (HOT) TP504 (GND)	VR502	RECORDING	VIDEO SIGNAL (COLOUR BAR)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	34±3mVp-p	

*** LUMINANCE RECORDING CURRENT ADJ.**

TP	ADJ.	MODE	INPUT
TP503 (HOT) TP504 (GND)	VR501	RECORDING	VIDEO SIGNAL (COLOUR BAR)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	170±5mVp-p	

1. Connect the oscilloscope to TP503 (HOT) and TP504 (GND). Then place the unit in RECORDING mode.
2. Set the VR501 to minimum position, so that luminance recording current signal must be closed to observe the chrominance recording current signal.
3. Adjust VR502 so that the chrominance recording current level is 34 +- 3mVp–p as shown in Fig. E7.

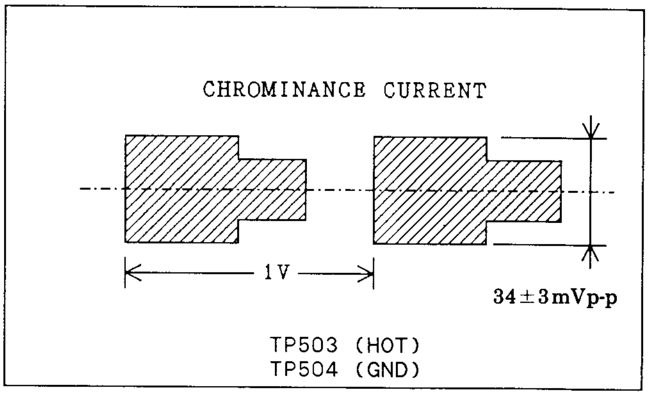


Fig. E7

4. Adjust VR501 so that the luminance recording current level 170 +- 5mVp-p.

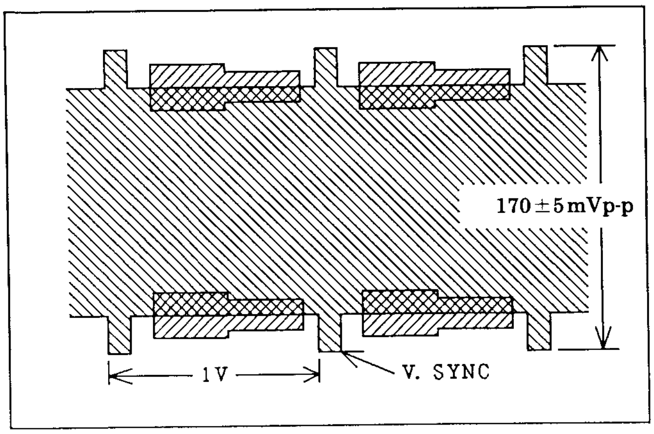
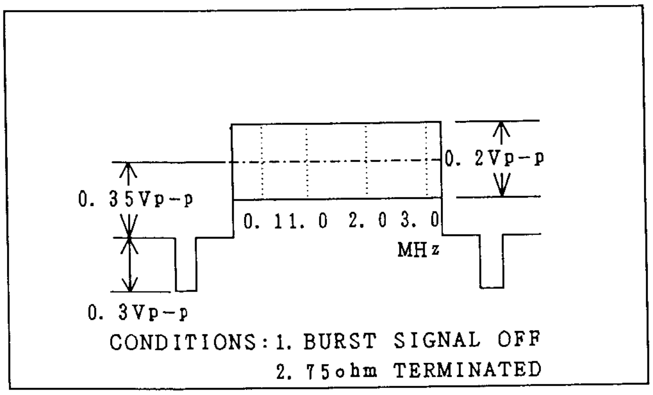


Fig. E8

2-4-9. HEAD AMP FREQUENCY RESPONCE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3002	VR3012	SELF RECORDING	VIDEO SWEEP
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	VIDEO SWEEP/ OSCILLO-SCOPE	A=0±1dB	

1. Set the sweep generator output as shown in Fig. E9.



CONDITIONS: 1. BURST SIGNAL OFF
2. 75ohm TERMINATED

Fig. E9

2. Set the PICTURE VR to centre fix position and EDIT SW (on the front panel) to "OFF" position.
3. Record sweep signal, then play back the just recorded portion.
4. Adjust VR3012 so that the waveform (A) becomes 0 +- 1dB (90~110%) comparing with 0.1MHz portion as shown in Fig. E10.

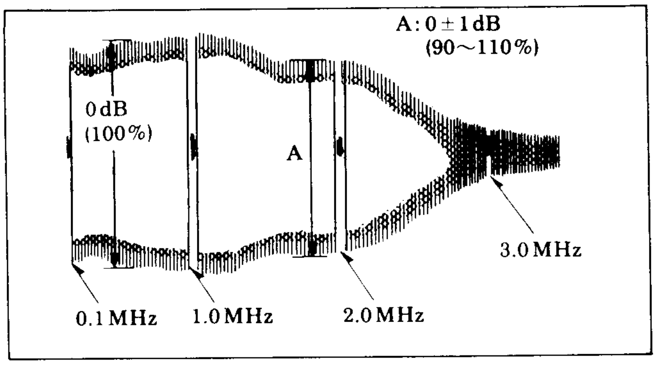
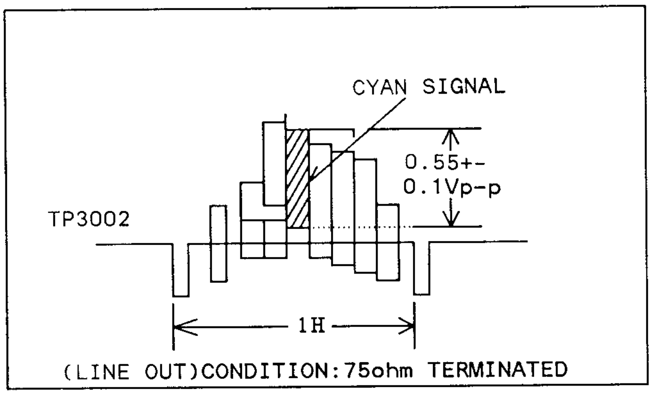


Fig. E10

2-4-10. PLAYBACK CHROMA CYAN LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3002	VR801	SELF RECORDING	VIDEO SIGNAL (COLOUR BAR)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	0.55±0.1Vp-p	

1. Record colour bar signal then play back the just recorded portion.
2. Adjust VR801 for 0.55 +-0.1 Vp-p as shown in Fig. E11.



(LINE OUT)CONDITION:75ohm TERMINATED

Fig. E11

2-4-11. HQ AMP GAIN ADJUSTMENT

TP	ADJ.	MODE	INPUT
Q301-(B) (CH-1) Q304-(E) (CH-2)	VR301	STOP	VIDEO SIGNAL (COLOUR BAR)
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE	0±30mVp-p	

1. Set the "EDIT SW" (on the front pannel) for "OFF" posisiton.
2. Connect the oscilloscope to Q301-Base (CH1) and Q304-Emitter (CH2).
3. Set the oscilloscope to "ADD" mode and set the Porality switch of CH2 side to "INV" (Invert) mode.
4. Adjust the VR301 so that operational amplitude becomes 0 +- 30mV (minimum as possible) as shown in Fig. E12.

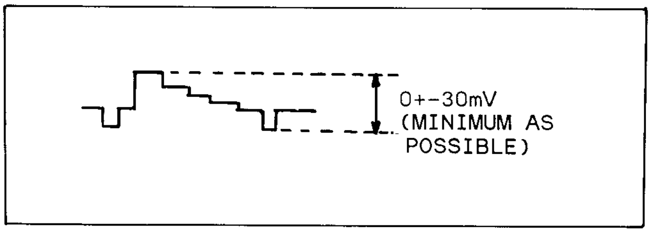


Fig. E12

2-4-12. SECAM KILLER ADJUSTMENT (NV-G21EG ONLY)

TP	ADJ.	MODE	INPUT
IC851-11	T851	SELF RECORDING	VIDEO SIGNAL (SECAM COLOUR BAR)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE		

1. First, remove the Luminance & Chrominance Pack C.B.A. from the Main C.B.A., then, remove the SECAM Pack C.B.A. from the Luminance & Chrominance Pack C.B.A..
   Next, reinstall the Luminance & Chrominance Pack C.B.A. to Main C.B.A. on foil side and reinstall the SECAM Pack C.B.A. to Luminance & Chrominance Pack C.B.A. on foil side.
   Finally solder the soldering portions of the Luminance & Chrominance Pack C.B.A. and SECAM Pack C.B.A..

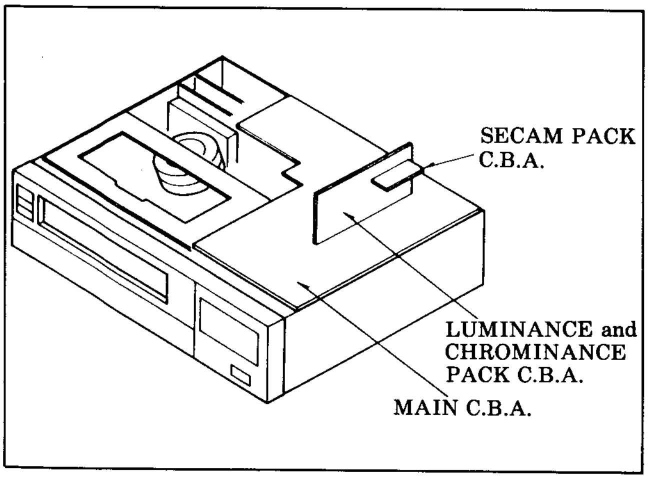


Fig. E13

2. Connect the oscilloscope to pin 11 of IC851 and place the unit in RECORDING mode.
3. Adjust the T851 so that the points "A" becomes maximum as shown in Fig. E14.

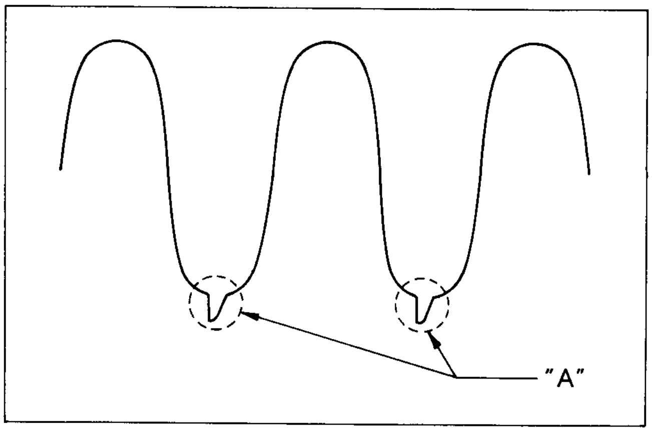


Fig. E14

AUDIO SECTION

Note:
Before the electrical adjustment in this section ,make the short circuit between Audio Input Jack and GND except for especial instructions in each adjustment item.

2-4-13. AUDIO BIAS CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4002 (+) TP4003 (−)	VR4002	RECORDING	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	V.T.V.M	3.2±0.1 mVrms	

2-4-14. AUDIO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4001	VR4001	SELF RECORDING	SIGNAL GENERATOR (1 kHz, 0 dB)/ VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	SIGNAL GENERATOR/ V.T.V.M	E-E LEVEL = −7±2 dB PLAYBACK LEVEL = E-E LEVEL ±0.5 dB	

Note:
Before this adjustment,"Tape Interchangeability Adjustment" must be completed.

1. Connect the V.T.V.M to TP4001 and Confirm that the E−E level is −7 +− 2dB.
2. Record the video and audio signals and play back the just recorded portion.
3. Adjust the VR4001 so that playback level becomes E−E level +− 0.5dB.

TIMER SECTION

2-4-15. AN ELECTRICITY FAILURE DETECTION ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC7551-12	VR7502		
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE/ 2 DC POWER SUPPLIES		

Note:
1) Do not connect the AC power plug.
2) Make a short circuit at C7518 to discharge. (refer to the Technical Information)

1. Set the voltage of the DC power supply (A) for 4.6 +− 0.05V and supply it to IC7551−8 (+) and GND (−).
2. Set the voltage of the DC power supply (B) for 45 +− 1V and supply it to JA−8 (D7555−anode side).
3. Turn the VR7502 until the voltage at pin12 of IC7551 is High Level.
4. Turn the VR7502 slowly until the voltage at TP7508 is Low Level (0V).
5. Change the voltage of the DC power supply (A) from 4.6 +− 0.05V to 4.8 +− 0.05V.
6. Confirm the voltage at pin12 of IC7551 is High Level.

2-4-16. TIMER CLOCK ADJUSTMENT

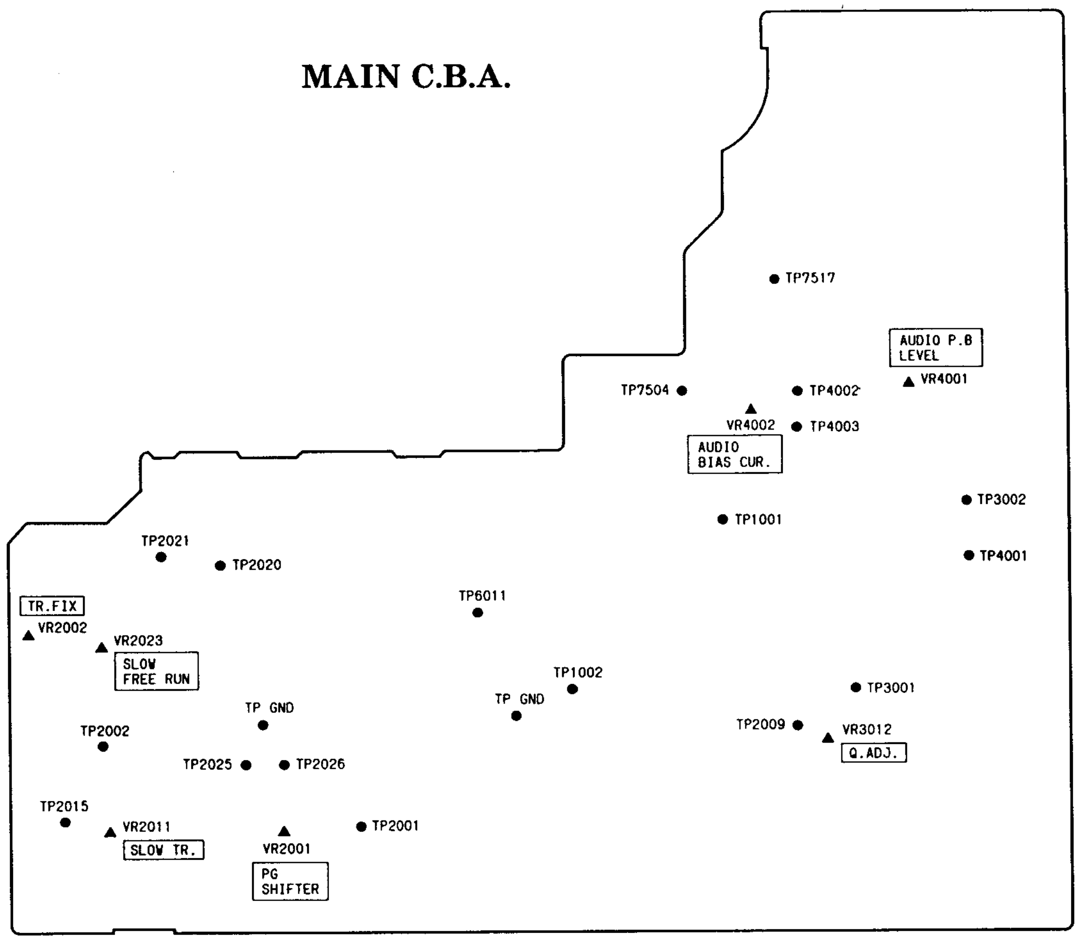
TP	ADJ.	MODE	INPUT
IC7501-37	C7502		
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	3906.25±0.008μs	

Note:
1) Do not connect the AC power plug.
2) Make a short circuit at C7518 to discharge. (refer to the Technical Information)

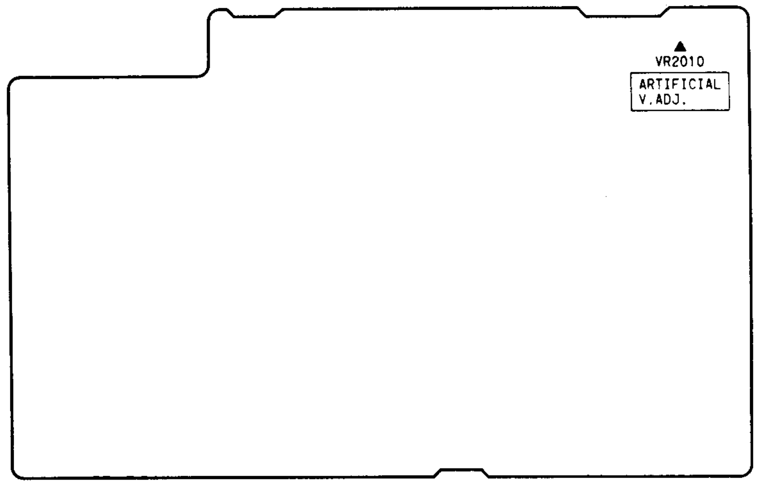
1. Set the voltage of the DC power supply for 5.8V +− 0.1V and supply it to P7501−6 (+) and GND (−).
2. Connect a jumper wire between P7501−7 and GND.
3. Connect the frequency counter to IC7501−37.
4. Adjust C7502 for 3906.25us +− 0.008us.

LOCATION OF TEST POINTS & CONTROLS —1—

MAIN C.B.A.

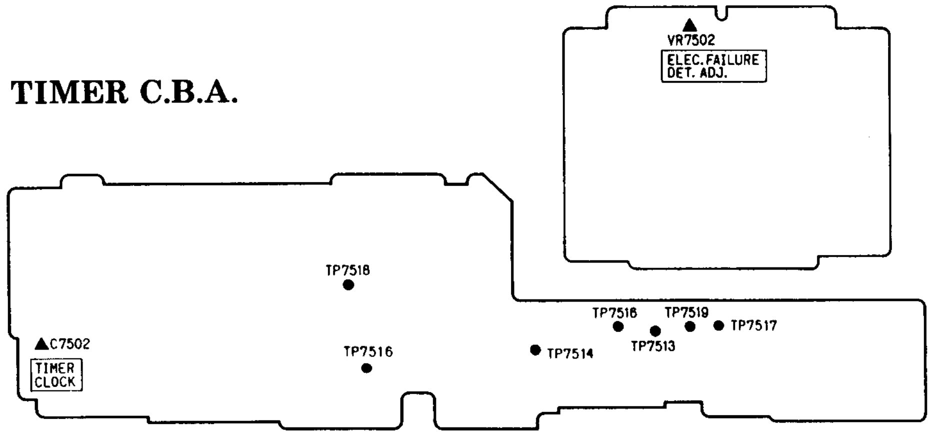

TP7517
AUDIO P.B LEVEL
VR4001
TP7504
TP4002
VR4002
TP4003
AUDIO BIAS CUR.
TP3002
TP1001
TP4001
TP2021
TP2020
TR.FIX
VR2002
VR2023
SLOW FREE RUN
TP6011
TP1002
TP GND
TP GND
TP3001
TP2002
TP2009
VR3012
Q.ADJ.
TP2025
TP2026
TP2015
VR2011
SLOW TR.
VR2001
PG SHIFTER
TP2001

SERVO PACK C.B.A.

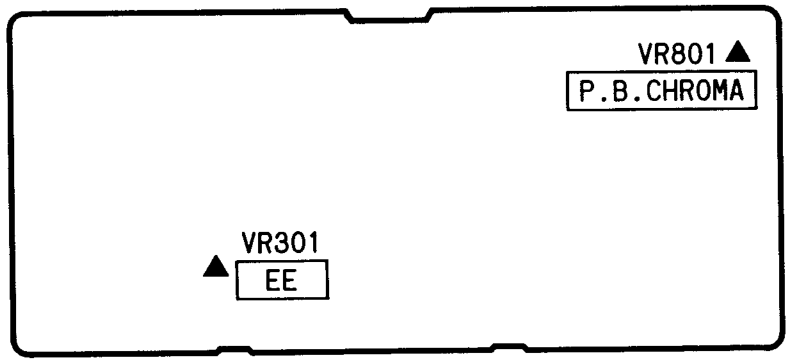

VR2010
ARTIFICIAL V.ADJ.

CH SELECT C.B.A.

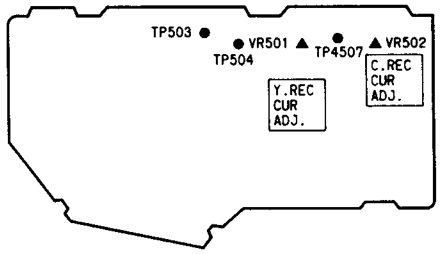
TIMER C.B.A.


VR7502
ELEC.FAILURE DET. ADJ.
TP7518
C7502
TIMER CLOCK
TP7516
TP7516
TP7519
TP7517
TP7514
TP7513

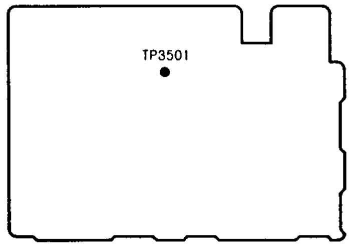
LUMINANCE & CHROMINANCE PACK C.B.A.


VR801
P.B.CHROMA
VR301
EE

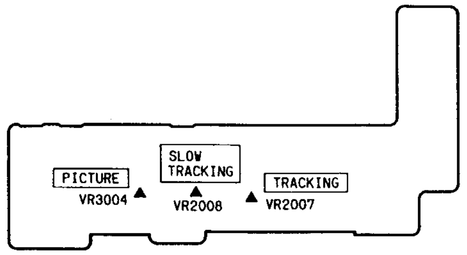
HEAD AMP PACK C.B.A.


TP503
TP504
VR501
TP4507
VR502
Y.REC CUR ADJ.
C.REC CUR ADJ.

INPUT SELECT PACK C.B.A.

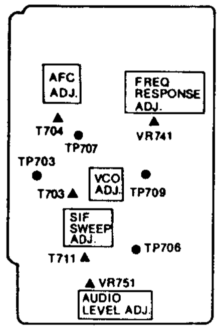


OPERATION C.B.A.


PICTURE
VR3004
SLOW TRACKING
VR2008
TRACKING
VR2007

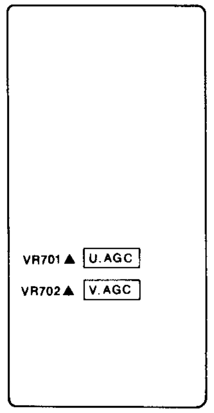
LOCATION OF TEST POINTS & CONTROLS —2—

TV DEMODULATOR PACK C.B.A. (NV-G21EG/EO/EV)



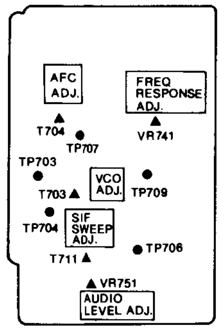
AFC ADJ.
FREQ RESPONSE ADJ.
T704
TP707
VR741
TP703
T703
VCO ADJ.
TP709
SIF SWEEP ADJ.
T711
TP706
VR751
AUDIO LEVEL ADJ.

TUNER/ARU PACK C.B.A. (NV-G21EG/EO/EV)



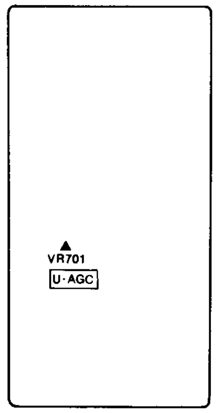
VR701
U.AGC
VR702
V.AGC

TV DEMODULATOR PACK C.B.A. (NV-G21B)

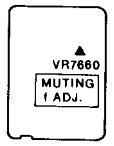


AFC ADJ.
FREQ RESPONSE ADJ.
T704
TP707
VR741
TP703
T703
VCO ADJ.
TP709
TP704
SIF SWEEP ADJ.
T711
TP706
VR751
AUDIO LEVEL ADJ.

TUNER/ARU PACK C.B.A. (NV-G21B)



MUTING C.B.A.



VR7660
MUTING f ADJ.

TV DEMODULATOR SECTION

Since different models, such as NV-G21EG/EV/EO/B are combined into one procedure, pay attention not to adjust different specifications.

2-4-17. TEST EQUIPMENT

To make adjustment completely, following equipments are required.

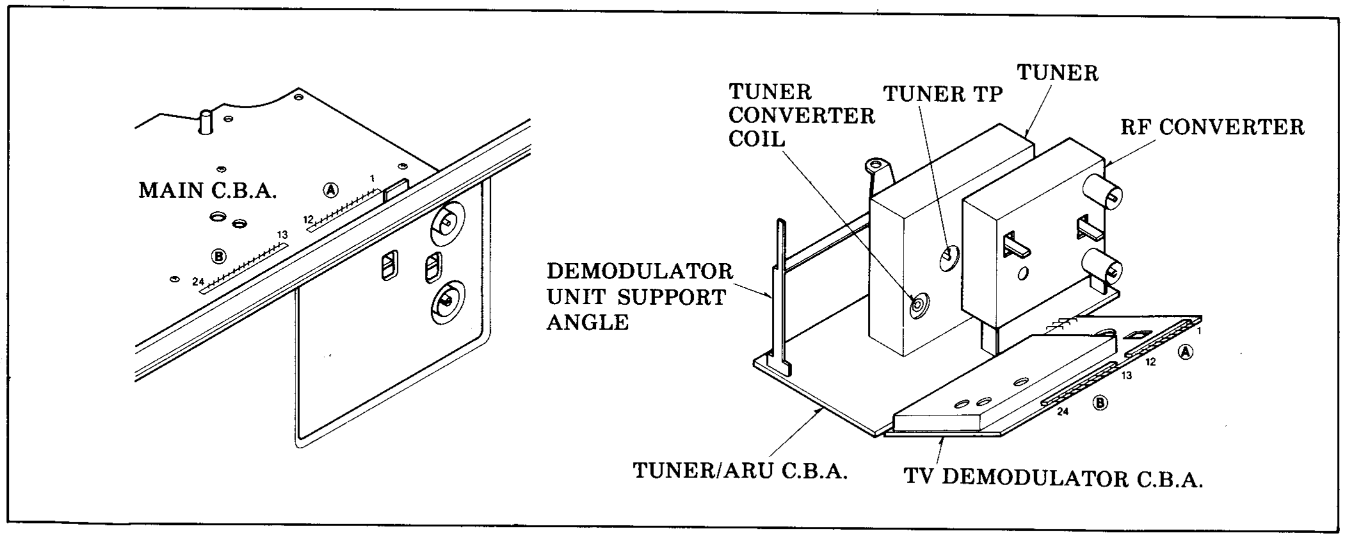
1. VIF SWEEP GENERATOR with the Trap Adjustor
   ....38.9MHz (EG/EV/EO)
   ....39.5MHz (B)
2. SIF SWEEP GENERATOR
   ....5.5MHz +- 150KHz (EG/EV/EO)
   ....6.0MHz +- 150KHz (B)
3. CW OSCILLATOR
   ....38.9MHz +- 100KHz (EG/EV/EO)
   ....39.5MHz +- 100KHz (B)
4. MONITOR SCOPE
5. OSCILLOSCOPE
6. DIGITAL VOLT METER
7. TUNING AMPLIFIER
8. MULTI VOICE MODULATOR (M.V.M)

Note:

1) Demodulator Unit Setting

To make this adjustment, set the Demodulator Unit as follows.

First, remove the Demodulator Unit (Tuner, RF Converter, TV Demodulator C.B.A and Tuner ARU C.B.A) from the Main C.B.A. Then, connect the TV Demodulator Pack pin to solder the same portions of the Main C.B.A by lead jumper.



MAIN C.B.A.
Ⓐ
Ⓑ
1
12
13
24
TUNER CONVERTER COIL
TUNER TP
TUNER
RF CONVERTER
DEMODULATOR UNIT SUPPORT ANGLE
TUNER/ARU C.B.A.
TV DEMODULATOR C.B.A.

Fig . E15

2) AFC ON-OFF

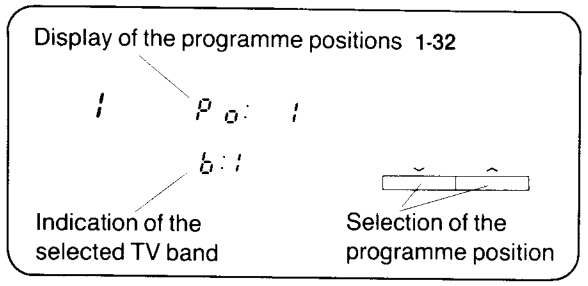
When you make AFC ON or OFF condition, set the VTR as follows.

* In case of NV-G21 EG/EV/EO.

(1) Press the START/OFF button.
The indication on the Multi-Function Display changes from the clock indication to the position indication.

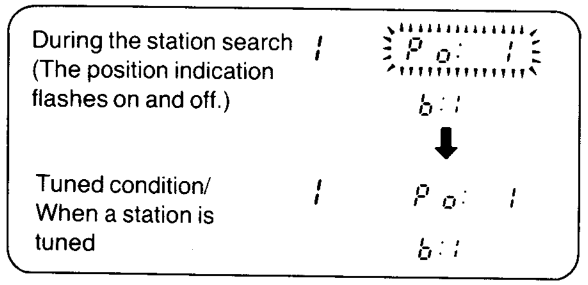
(2) Press the Channel Up or Down button to select a programme position (channel) which you want to tune to a TV station.

(3) Press the BAND/AFC button to select the "I", "III", "H" or "U" position.
("H" ... NV-G21EG only)



Display of the programme positions 1-32
I
Po: I
b: I
Indication of the selected TV band
Selection of the programme position

(4) Press the SEARCH (+) or (–) button until the picture of the desired station on your TV is satisfactory.
* If the Search (+) or (–) button is pressed while pressing the Quick Button, the stations will change quickly.



During the station search
(The position indication flashes on and off.)
I
Po: I
b: I
Tuned condition/ When a station is tuned
I
Po: I
b: I

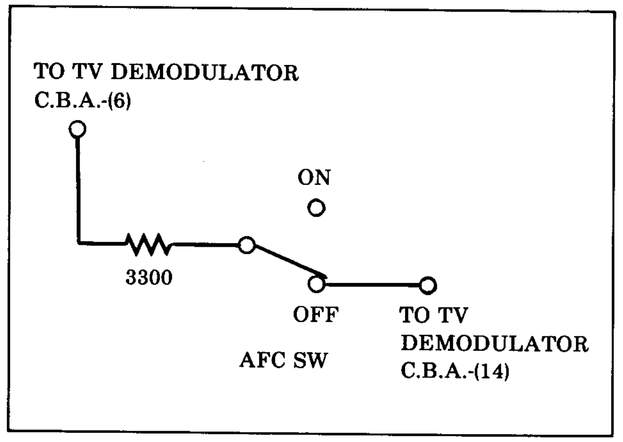
(5) Press the START/OFF button again.
The indication on the Multi-Function Display changes to the clock indication.
Now AFC is "ON" condition.

(6) Press the FINE TUNING (+) or (–) button in a moment.
Now AFC is "OFF" condition.

(7) Press the BAND/AFC button.
Now AFC is "ON" condition again.

* In case of NV-G21B.

(1) Set the AFC Jig after remove the TV Demodulator C.B.A.-(14) to cut of the AFC DEF signal from IC7501-(7).

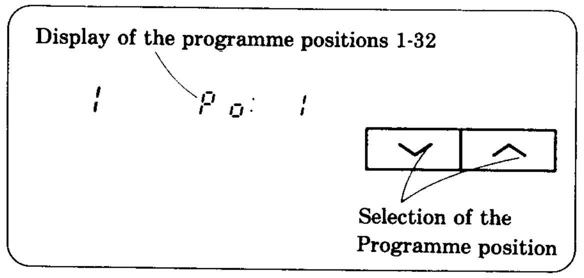


TO TV DEMODULATOR C.B.A.-(6)
ON
3300
OFF
AFC SW
TO TV DEMODULATOR C.B.A.-(14)

AFC JIG

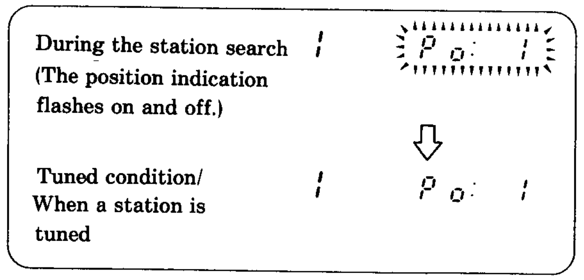
(2) Press the PRESET/NORMAL button.
The indication on the Multi-Function Display changes from the clock indication to the position indication.
Then the AFC switch of the Jig to "OFF" position.

(3) Press the Channel Up or Down button to select a programme position (channel) which you want to tune to a TV station.



Display of the programme positions 1-32
I
Po: I
Selection of the Programme position

(4) Press the SEARCH (+) or (–) button until the picture of the desired station on your TV is satisfactory.
Then set the AFC switch of the AFC Jig to "ON" position and press the MEMORY button.



During the station search
(The position indication flashes on and off.)
I
Po: I
Tuned condition/ When a station is tuned
I
Po: I

(5) Press the PRESET/NORMAL button again.
The indication on the Multi-Function Display changes to the clock indication.
Now AFC is "ON" condition.

(6) Set the AFC switch of the AFC Jig to "OFF" position.
Now AFC is "OFF" condition.

(7) Set the AFC switch of the AFC Jig to "ON" position again.
Now AFC is "ON" condition again.

2-4-18. VIF SWEEP ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP707	T703, TUNER CONVERTER COIL (EV/EO/B), X717 (EG)		VIF SWEEP
TAPE	**M. EQ.**	**SPEC.**	
	VIF SWEEP/ MONITOR SCOPE	Refer to VIF Specification chart. (Fig. E-20)	

1. Set the BAND SW for VHF position (EG:I, EV/EO:III) and set the DC power supply for 15V and suplly it to BT Terminal of the Tuner after removing TV Demodulator C.B.A −(9) to cut off the BT voltage from IC7551−(2).
2. Set the AFC OFF condition.
3. Connect a jumper wire between AGC Terminal of the Tuner and GND.
4. Connect a capasitor (50V/1 uF) between TP703 and GND.
5. Connect the VIF sweep generator to the Tuner Test Point and connect the monitor scope to TP707 as shown in Fig. E16.
   (Marker Frequency of VIF Sweep waveform is shown in Fig. E17)

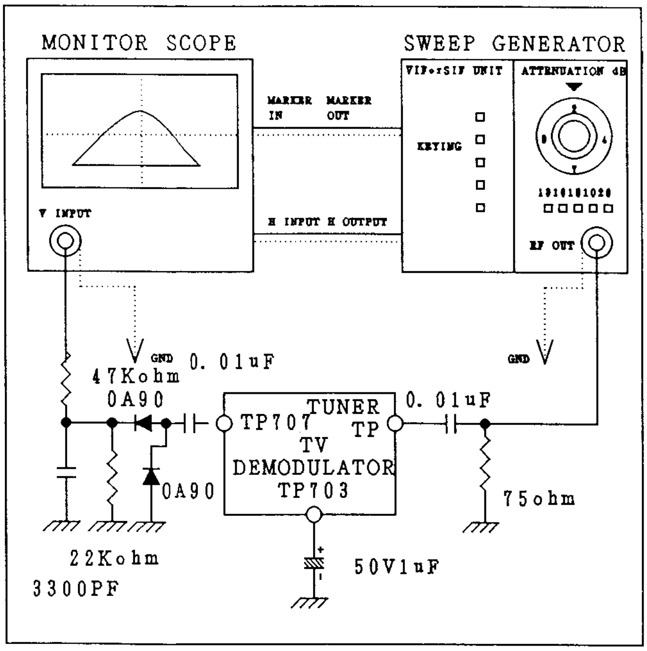

MONITOR SCOPE
SWEEP GENERATOR
VIF•rSIF UNIT
ATTENUATION dB
MARKER IN
MARKER OUT
KEYING
V INPUT
H INPUT
H OUTPUT
RF OUT
GND
0. 01uF
47Kohm
OA90
TUNER
TP707
TP
TV DEMODULATOR
TP703
0. 01uF
OA90
75ohm
22Kohm
3300PF
50V1uF

Fig. E16

MODEL NO.		EG/EV/EO	B
MARKER FREQUENCY	fs′	40.4MHz	41.5MHz
	fp	38.9MHz	39.5MHz
	f1	38.15MHz	38.6MHz
	f2	35.22MHz	35.5MHz
	fc	34.47MHz	35.07MHz
	f3	33.97MHz	34.57MHz
	fs	33.4MHz	33.5MHz
	fp′	31.9MHz	31.5MHz

Fig. E17

6. Adjust T703 so that the VCO beat is placed to centre of P1 and P2 mackers on the output waveform as shown in Fig. E18.

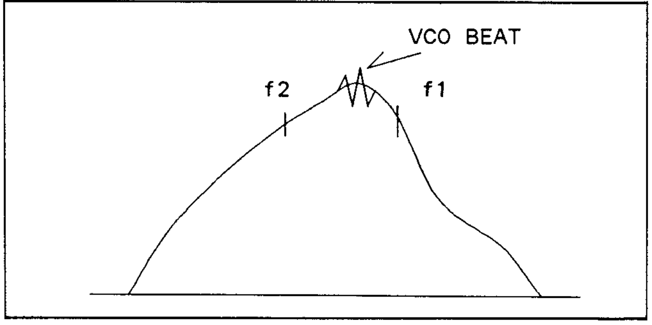

VCO BEAT
f2
f1

Fig. E18

7. Adjust the VIF sweep generator so that the output sweep waveform level becomes 0.3Vp−p on the monitor scope.
   Then release the attenuator of the VIF sweep generator for 20dB.
8. Connect the Adjustment Jig as shown in Fig. E19, then adjust VR of Adjustment Jig so that the output sweep waveform level becomes 0.3Vp−p on the monitor scope.

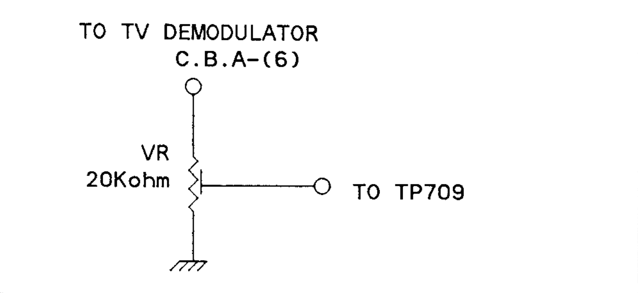
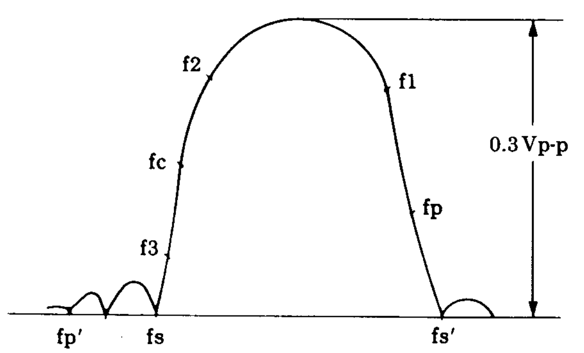

TO TV DEMODULATOR
C.B.A−(6)
VR
20Kohm
TO TP709

Fig. E19

9. Adjust the Tuner Converter Coil (EV/EO/B) or X717 (EG) so that the waveform becomes as follows.


f2
f1
0.3Vp-p
fc
fp
f3
fp′
fs
fs′

VIF WAVEFORM

MODEL No.		EG	EV/EO	B
SPECIFICATIONS	fp	30±5%	30±5%	30±5%
	f1	—	60~80%	60~80%
	f2	—	50~70%	60~90%
	fc	25~45%	20~40%	35~50%
	f3	—	5~20%	—

Fig. E20

2-4-19. VCO ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP704	T703		
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER/ TUNING AMPLIFIER	39.5MHz±10kHz (B) 38.9MHz±10kHz (EG/EV/EO)	

1. Connect a Resistor (1Kohm) between TP709 and GND.
2. Connect the frequency counter to TP704 through the tuning amplifier.
3. Adjust T703 so that the reading of frequency counter is 38.9MHz +– 10KHz (EG/EV/EO) or 39.5MHz +– 10KHz (B).

2-4-20. AFC ADJUSTMENT

TP	ADJ.	MODE	INPUT
AFC TERMINAL OF THE TUNER	T704		CW SIGNAL (1 Vrms)
TAPE	**M. EQ.**	**SPEC.**	
	CW OSCILLATOR/ D.V.M.	A=38.9MHz (EG/EV/EO) A=39.5MHz (B)	

1. Set the BAND SW for the VHF position (EG:I, EV/EO:III) and set the DC power supply for 15 +– 1V and supply it to BT Terminal of the Tuner after removing TV Demodulator C.B.A–(9) to cut of the BT voltage from IC7551–(2).
2. Set the CW oscillator output for "A" MHz and 1Vrms. Connect the CW oscillator output to the Tuner Test Point.
3. Connect the D.V.M. to the AFC terminal of the tuner.
4. Read the value "B" of the D.V.M., when the AFC is OFF condition.
5. Set the AFC ON condition and adjust T704 for "B" +– 0.3V.
6. Change the frequency of the CW oscillator to "A" (MHz) +– 100KHz, and confirm the difference of the AFC voltage is more than +–2V

2-4-21. SIF SWEEP ADJUSTMENT

TP	ADJ.	MODE	INPUT
AUDIO OUT (TV DEMODU-LATOR C.B.A.-(15))	T711 VR751		SIF SWEEP
TAPE	**M. EQ.**	**SPEC.**	
	VIF SWEEP/ MONITOR SCOPE	A=5.5MHz (EG/EV/EO) A=6.0MHz (B)	

1. Set the DC power supply for 15 +– 1V and supply it to BT Terminal of the Tuner after removing TV Demodulator C.B.A –(9) to cut of the BT voltage from IC7551 – (2).
2. Set the AFC OFF condition.
3. Connect the SIF sweep generator to TP706 and connect the monitor scope to TV Demodulator C.B.A–(15) as shown in Fig. E21.

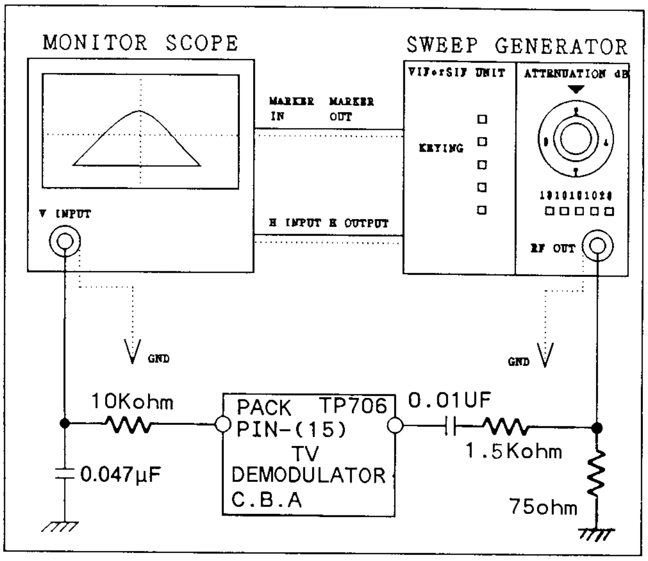


Fig. E21

4. Connect the Jig to both points TP709 and TV Demodulator C.B.A–(6). (Refer to Fig. E19) Adjust the VR of the Jig so that the DC level becomes less than 3V.
5. Set the output of SIF sweep generator for 250mVrms at no load.
6. Adjust VR751 so that the SIF waveform becomes center.
7. Adjust T711 so that the attenuation of (A) trap becomes minimum. And adjust for maximum peak–to– peak amplitude of response "S" curve as shown in Fig. E22.

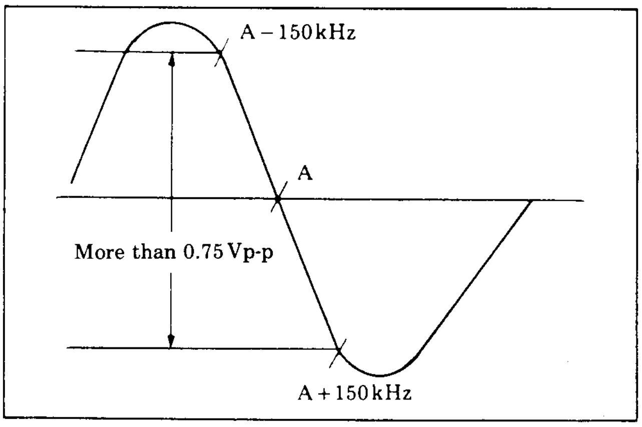


Fig. E22

8. Confirm that the level between (A) +– 150KHz marker position is more than 0.75Vp–p.

2-4-22. VIDEO FREQUENCY RESPONSE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TV DEMODU-LATOR C.B.A.-(13)	VR741		VIDEO SWEEP V. MOD: 70%, 75dBμ
TAPE	**M. EQ.**	**SPEC.**	
	OSCILLO-SCOPE/ VIDEO SWEEP/ M.V.M		

1. Supply a video sweep signal from the Video sweep generator to the input of the M.V.M.
2. Connect the output of the M.V.M to RF Input of the Deck.
3. Press the SEARCH (+) or (−) button so that the modulated RF signal on the channel 10 (NV−G21EG/EV/EO) or 60 (NV−G21B) is able to receive.
4. Set the AFC ON condition.
5. Adjust VR741 so that the waveform at the Video out (TV Demodulator C.B.A−(13)) becomes as shown in Fig. E23.

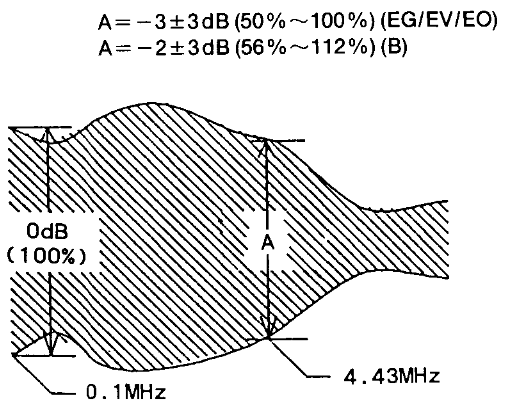


Fig. E23

2-4-23. AUDIO LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
AUDIO OUT (TV DEMODU-LATOR C.B.A.-(15))	VR751		VIDEO COLOUR BAR V. MODU: 87.5%, 75dBμ AUDIO 400Hz A. MODU: 30% (60%, 100%) (15kHz DEV)
TAPE	**M. EQ.**	**SPEC.**	
	RC OSC/ OSCILLO-SCOPE or D.V.M/ M.V.M/ PATTERN GENERATOR		

1. Supply a video signal (COLOUR BAR pattern) from the pattern generator and 400Hz sine wave from RC oscillator to the input of the M.V.M.
2. Connect the output of the M.V.M to RF Input of the Deck.
3. Press the SEARCH (+) or (−) button so that the modulated RF signal on the channel 10 (NV−G21EG/EV/EO) or 60 (NV−G21B) is able to receive.
4. Set the AFC ON condition.
5. Connect the oscilloscope or D.V.M to TV Demodulator C.B.A−(15).
6. Adjust VR751 so that the audio level becomes as shown below.

DEV M. EQ.	30%	60%	100%
OSCILLO-SCOPE	100±5mVp-p	200±5mVp-p	333±17mVp-p
D.V.M	35±2mVrms	70±4mVrms	117±6mVrms

2-4-24. AUDIO MUTING FREQUENCY ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC7651-④	VR7660		
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	15625±50Hz	

Note:
To make this adjustment, please prepare the following circuit as shown in Fig. E24.

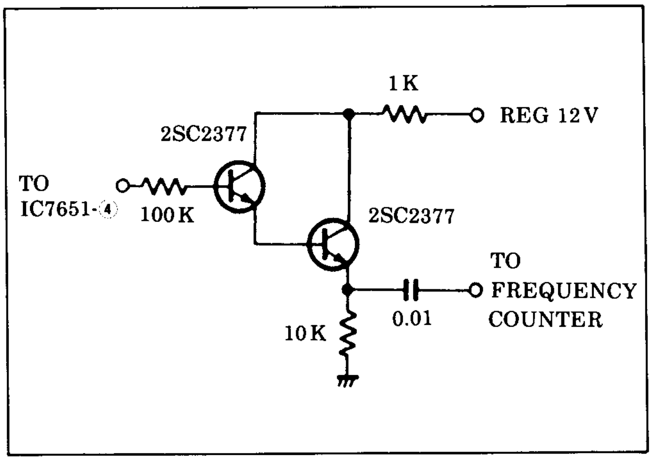


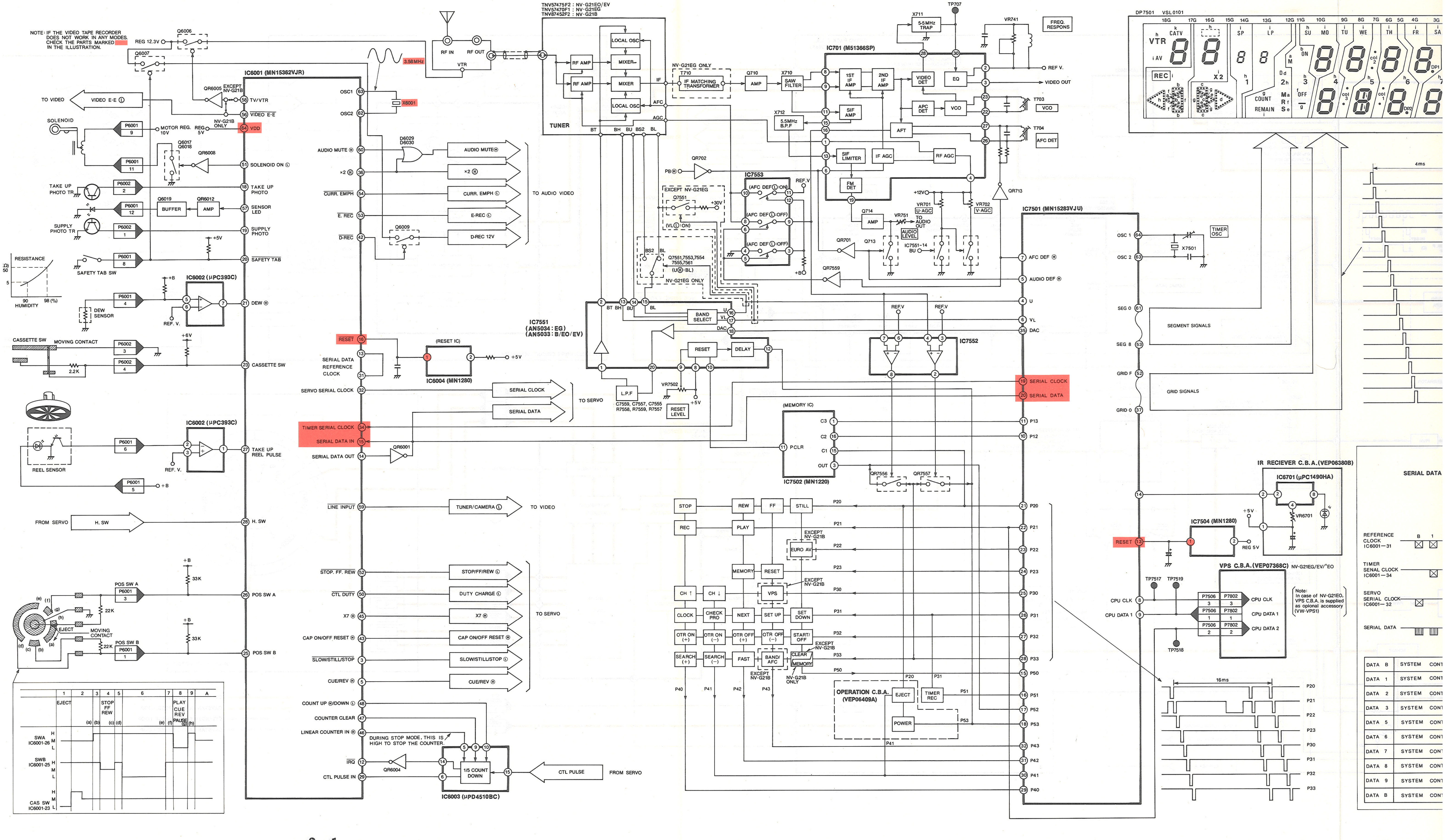
Fig. E24

Memo

SECTION 3

BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS

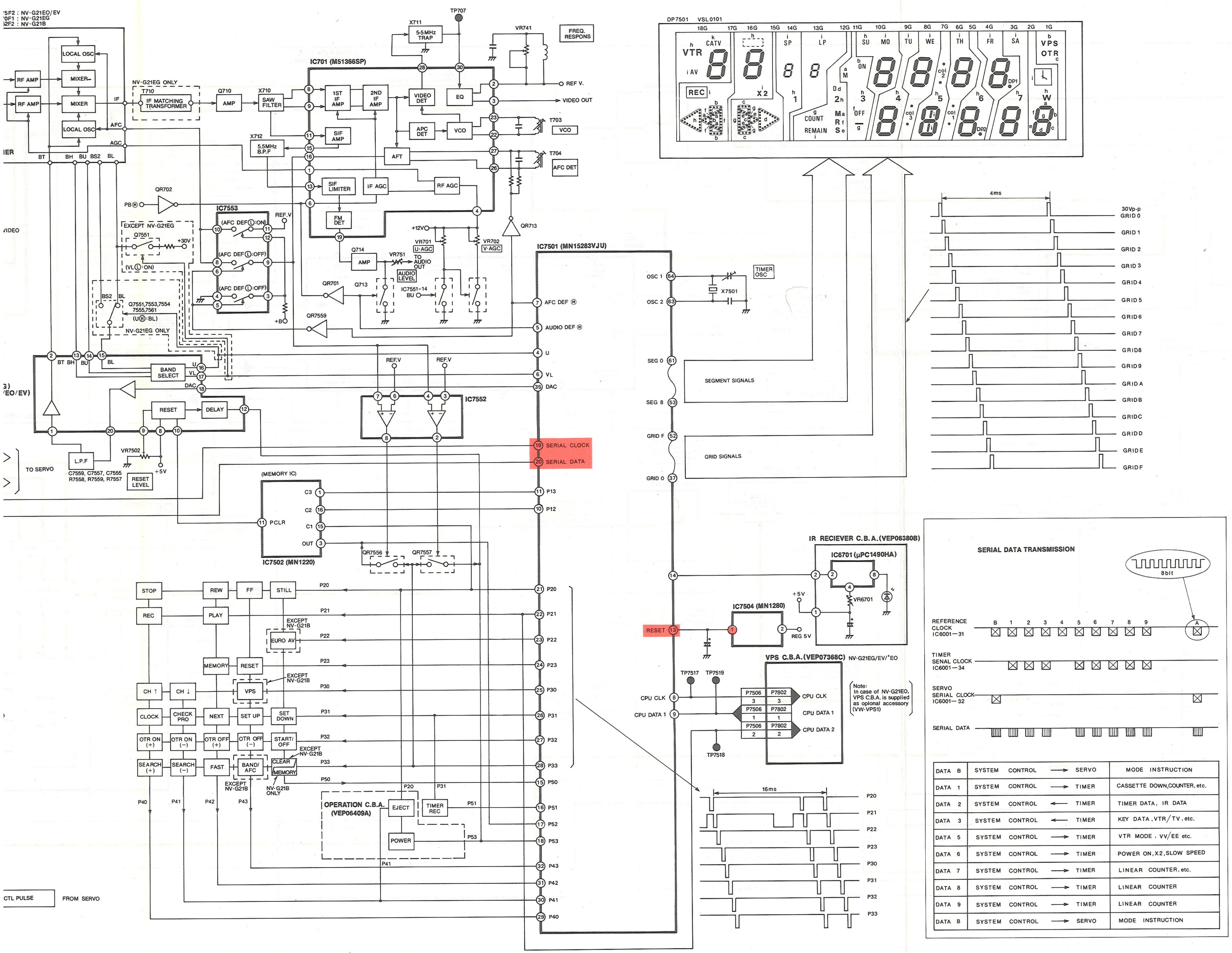
-1. SYSTEM CONTROL BLOCK DIAGRAM



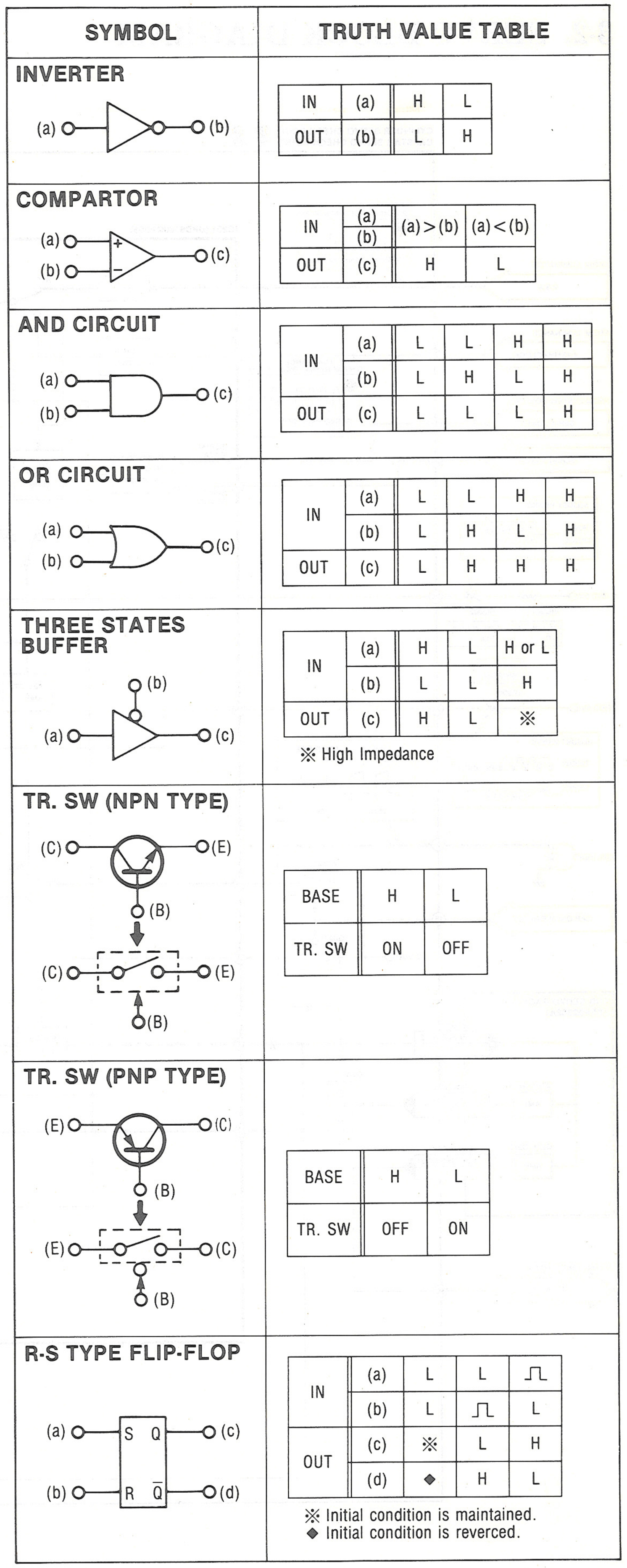
NOTE: IF THE VIDEO TAPE RECORDER DOES NOT WORK IN ANY MODES, CHECK THE PARTS MARKED ▨ IN THE ILLUSTRATION.

IC6001 (MN15362VJR)
REG 12.3V
Q6006
Q6007
QR6005
EXCEPT NV-G21B
TO VIDEO
VIDEO E-E Ⓛ
TV/VTR
VIDEO E-E
SOLENOID
P6001
MOTOR REG. 10V
REG 5V
NV-G21B ONLY
VDD
Q6017 Q6018
QR6008
SOLENOID ON Ⓛ
TAKE UP PHOTO TR
P6002
TAKE UP PHOTO
Q6019
QR6012
BUFFER
AMP
SENSOR LED
SUPPLY PHOTO TR
SUPPLY PHOTO
+5V
SAFETY TAB
SAFETY TAB SW
RESISTANCE
HUMIDITY
IC6002 (μPC393C)
DEW SENSOR
DEW Ⓗ
REF. V.
CASSETTE SW
MOVING CONTACT
2.2K
CASSETTE SW
+6V
REEL SENSOR
TAKE UP REEL PULSE
FROM SERVO
H. SW
POS SW A
POS SW B
33K
22K
EJECT
MOVING CONTACT
SWA IC6001-26
SWB IC6001-25
CAS SW IC6001-23
STOP FF REW
PLAY CUE REV PAUSE
OSC1
OSC2
X6001
3.58MHz
AUDIO MUTE Ⓗ
D6029 D6030
×2 Ⓗ
CURR. EMPH
E. REC
D-REC
Q6009
AUDIO MUTE Ⓗ
CURR. EMPH Ⓛ
E-REC Ⓛ
D-REC 12V
TO AUDIO VIDEO
RESET
(RESET IC)
IC6004 (MN1280)
SERIAL DATA REFERENCE CLOCK
SERVO SERIAL CLOCK
SERIAL CLOCK
SERIAL DATA
TO SERVO
TIMER SERIAL CLOCK
SERIAL DATA IN
SERIAL DATA OUT
QR6001
LINE INPUT
TUNER/CAMERA Ⓛ
TO VIDEO
STOP, FF, REW
STOP/FF/REW Ⓛ
CTL DUTY
DUTY CHARGE Ⓛ
X7 Ⓗ
CAP ON/OFF RESET Ⓗ
SLOW/STILL/STOP
CUE/REV Ⓗ
COUNT UP Ⓗ/DOWN Ⓛ
COUNTER CLEAR
LINEAR COUNTER IN Ⓗ
DURING STOP MODE, THIS IS HIGH TO STOP THE COUNTER.
IRQ
QR6004
CTL PULSE IN
1/5 COUNT DOWN
IC6003 (μPD4510BC)
CTL PULSE
FROM SERVO
TNV57475F2 : NV-G21EO/EV
TNV57470F1 : NV-G21EG
TNV67452F2 : NV-G21B
RF IN
RF OUT
VTR
RF AMP
LOCAL OSC
MIXER
TUNER
AGC
AFC
IF
BT BH BU BS2 BL
NV-G21EG ONLY
T710
IF MATCHING TRANSFORMER
Q710
AMP
X710
SAW FILTER
X712
5.5MHz B.P.F
IC701 (M51366SP)
1ST IF AMP
2ND IF AMP
VIDEO DET
EQ
SIF AMP
APC DET
VCO
AFT
SIF LIMITER
IF AGC
RF AGC
FM DET
X711
5.5MHz TRAP
TP707
VR741
FREQ. RESPONS
REF V.
VIDEO OUT
T703
T704
AFC DET
QR702
PB Ⓗ
IC7553
EXCEPT NV-G21EG
Q7551
+30V
(AFC DEF Ⓛ:ON)
(AFC DEF Ⓛ:OFF)
(VL Ⓛ:ON)
Q7551,7553,7554 7555,7561
(U Ⓗ:BL)
NV-G21EG ONLY
+12V
VR701 U-AGC
VR702 V-AGC
QR713
Q714
AMP
VR751
TO AUDIO OUT
AUDIO LEVEL
IC7551-14 BU
QR701
Q713
QR7559
IC7551 (AN5034 : EG) (AN5033 : B/EO/EV)
BAND SELECT
RESET
DELAY
L.P.F
VR7502
+5V
C7559, C7557, C7555 R7558, R7559, R7557
RESET LEVEL
IC7552
REF.V
(MEMORY IC)
IC7502 (MN1220)
PCLR
QR7556
QR7557
IC7501 (MN15283VJU)
AFC DEF Ⓗ
AUDIO DEF Ⓗ
U
VL
DAC
SERIAL CLOCK
SERIAL DATA
P13
P12
OSC 1
OSC 2
X7501
TIMER OSC
SEG 0
SEG 8
SEGMENT SIGNALS
GRID F
GRID 0
GRID SIGNALS
STOP
REW
FF
STILL
REC
PLAY
EXCEPT NV-G21B
EURO AV
MEMORY
CH ↑
CH ↓
VPS
CLOCK
CHECK PRO
NEXT
SET UP
SET DOWN
OTR ON (+)
OTR ON (−)
OTR OFF (+)
OTR OFF (−)
START/OFF
SEARCH (+)
SEARCH (−)
FAST
BAND/AFC
CLEAR
MEMORY
NV-G21B ONLY
OPERATION C.B.A. (VEP06409A)
EJECT
TIMER REC
POWER
P20 P21 P22 P23 P30 P31 P32 P33 P50 P51 P52 P53 P43 P42 P41 P40
DP7501
VSL0101
VTR
CATV
SP
LP
SU MO TU WE TH FR SA
REC
X2
COUNT
REMAIN
ON
OFF
IR RECIEVER C.B.A.(VEP06380B)
IC6701 (μPC1490HA)
VR6701
IC7504 (MN1280)
REG 5V
VPS C.B.A.(VEP07368C) NV-G21EG/EV/*EO
TP7517
TP7519
TP7518
CPU CLK
CPU DATA 1
CPU DATA 2
P7506
P7802
Note: In case of NV-G21EO, VPS C.B.A. is supplied as opional accessory (VW-VPS1)
16ms
4ms
SERIAL DATA
REFERENCE CLOCK IC6001—31
TIMER SERIAL CLOCK IC6001—34
SERVO SERIAL CLOCK IC6001—32
SERIAL DATA
DATA B SYSTEM CONT
DATA 1 SYSTEM CONT
DATA 2 SYSTEM CONT
DATA 3 SYSTEM CONT
DATA 5 SYSTEM CONT
DATA 6 SYSTEM CONT
DATA 7 SYSTEM CONT
DATA 8 SYSTEM CONT
DATA 9 SYSTEM CONT
DATA B SYSTEM CONT

MS


5F2 : NV-G21EO/EV
0F1 : NV-G21EG
2F2 : NV-G21B
RF AMP
LOCAL OSC
MIXER
IF
AFC
AGC
BT
BH
BU
BS2
BL
NV-G21EG ONLY
T710
IF MATCHING TRANSFORMER
Q710
AMP
X710
SAW FILTER
X712
5.5MHz B.P.F
IC701 (M51366SP)
1ST IF AMP
2ND IF AMP
VIDEO DET
EQ
SIF AMP
APC DET
VCO
AFT
SIF LIMITER
IF AGC
RF AGC
FM DET
X711
5·5MHz TRAP
TP707
VR741
FREQ. RESPONS
REF V.
VIDEO OUT
T703
VCO
T704
AFC DET
QR713
QR702
PB Ⓗ
IC7553
REF.V
(AFC DEF Ⓛ:ON)
(AFC DEF Ⓛ:OFF)
EXCEPT NV-G21EG
Q7551
+30V
(VL Ⓛ:ON)
Q7551,7553,7554 7555,7561
(U Ⓗ:BL)
NV-G21EG ONLY
+B
+12V
VR701
U-AGC
VR702
V-AGC
Q714
AMP
VR751
TO AUDIO OUT
AUDIO LEVEL
QR701
Q713
IC7551-14
BU
QR7559
BAND SELECT
U
VL
DAC
RESET
DELAY
L.P.F
VR7502
+5V
TO SERVO
C7559, C7557, C7555 R7558, R7559, R7557
RESET LEVEL
IC7552
IC7501 (MN15283VJU)
AFC DEF Ⓗ
AUDIO DEF Ⓗ
SERIAL CLOCK
SERIAL DATA
(MEMORY IC)
PCLR
C3
C2
C1
OUT
IC7502 (MN1220)
QR7556
QR7557
P13
P12
STOP
REW
FF
STILL
REC
PLAY
EXCEPT NV-G21B
EURO AV
MEMORY
RESET
CH ↑
CH ↓
VPS
CLOCK
CHECK PRO
NEXT
SET UP
SET DOWN
OTR ON (+)
OTR ON (−)
OTR OFF (+)
OTR OFF (−)
START/ OFF
SEARCH (+)
SEARCH (−)
FAST
BAND/ AFC
CLEAR
MEMORY
NV-G21B ONLY
OPERATION C.B.A. (VEP06409A)
EJECT
TIMER REC
POWER
P20
P21
P22
P23
P30
P31
P32
P33
P50
P51
P52
P53
P43
P42
P41
P40
CTL PULSE
FROM SERVO
OSC 1
OSC 2
X7501
TIMER OSC
SEG 0
SEG 8
GRID F
GRID 0
SEGMENT SIGNALS
GRID SIGNALS
DP7501 VSL0101
VTR
CATV
AV
REC
SP
LP
COUNT
REMAIN
SU MO TU WE TH FR SA
VPS
OTR
OFF
X2
IR RECIEVER C.B.A.(VEP06380B)
IC6701 (μPC1490HA)
VR6701
IC7504 (MN1280)
REG 5V
RESET
TP7517
TP7519
TP7518
VPS C.B.A.(VEP07368C) NV-G21EG/EV/EO
CPU CLK
CPU DATA 1
CPU DATA 2
P7506
P7802
Note: In case of NV-G21EO, VPS C.B.A. is supplied as optional accessory (VW-VPS1)
4ms
30Vp-p
GRID 0
GRID 1
GRID 2
GRID 3
GRID 4
GRID 5
GRID 6
GRID 7
GRID 8
GRID 9
GRID A
GRID B
GRID C
GRID D
GRID E
GRID F
16ms
SERIAL DATA TRANSMISSION
8bit
REFERENCE CLOCK IC6001—31
TIMER SENAL CLOCK IC6001—34
SERVO SERIAL CLOCK IC6001—32
SERIAL DATA
B 1 2 3 4 5 6 7 8 9 A

DATA B	SYSTEM CONTROL → SERVO	MODE INSTRUCTION
DATA 1	SYSTEM CONTROL → TIMER	CASSETTE DOWN,COUNTER, etc.
DATA 2	SYSTEM CONTROL ← TIMER	TIMER DATA, IR DATA
DATA 3	SYSTEM CONTROL ← TIMER	KEY DATA, VTR/TV, etc.
DATA 5	SYSTEM CONTROL → TIMER	VTR MODE, VV/EE etc.
DATA 6	SYSTEM CONTROL → TIMER	POWER ON, X2, SLOW SPEED
DATA 7	SYSTEM CONTROL → TIMER	LINEAR COUNTER, etc.
DATA 8	SYSTEM CONTROL → TIMER	LINEAR COUNTER
DATA 9	SYSTEM CONTROL → TIMER	LINEAR COUNTER
DATA B	SYSTEM CONTROL → SERVO	MODE INSTRUCTION


(a)
(b)
(c)
(d)
+
−
(C)
(E)
(B)
S
Q
R
Q̄

SYMBOL	TRUTH VALUE TABLE

INVERTER

IN	(a)	H	L
OUT	(b)	L	H

COMPARTOR

IN	(a) (b)	(a) > (b)	(a) < (b)
OUT	(c)	H	L

AND CIRCUIT

IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	L	L	H

OR CIRCUIT

IN	(a)	L	L	H	H
	(b)	L	H	L	H
OUT	(c)	L	H	H	H

THREE STATES BUFFER

IN	(a)	H	L	H or L
	(b)	L	L	H
OUT	(c)	H	L	※

※ High Impedance

TR. SW (NPN TYPE)

BASE	H	L
TR. SW	ON	OFF

TR. SW (PNP TYPE)

BASE	H	L
TR. SW	OFF	ON

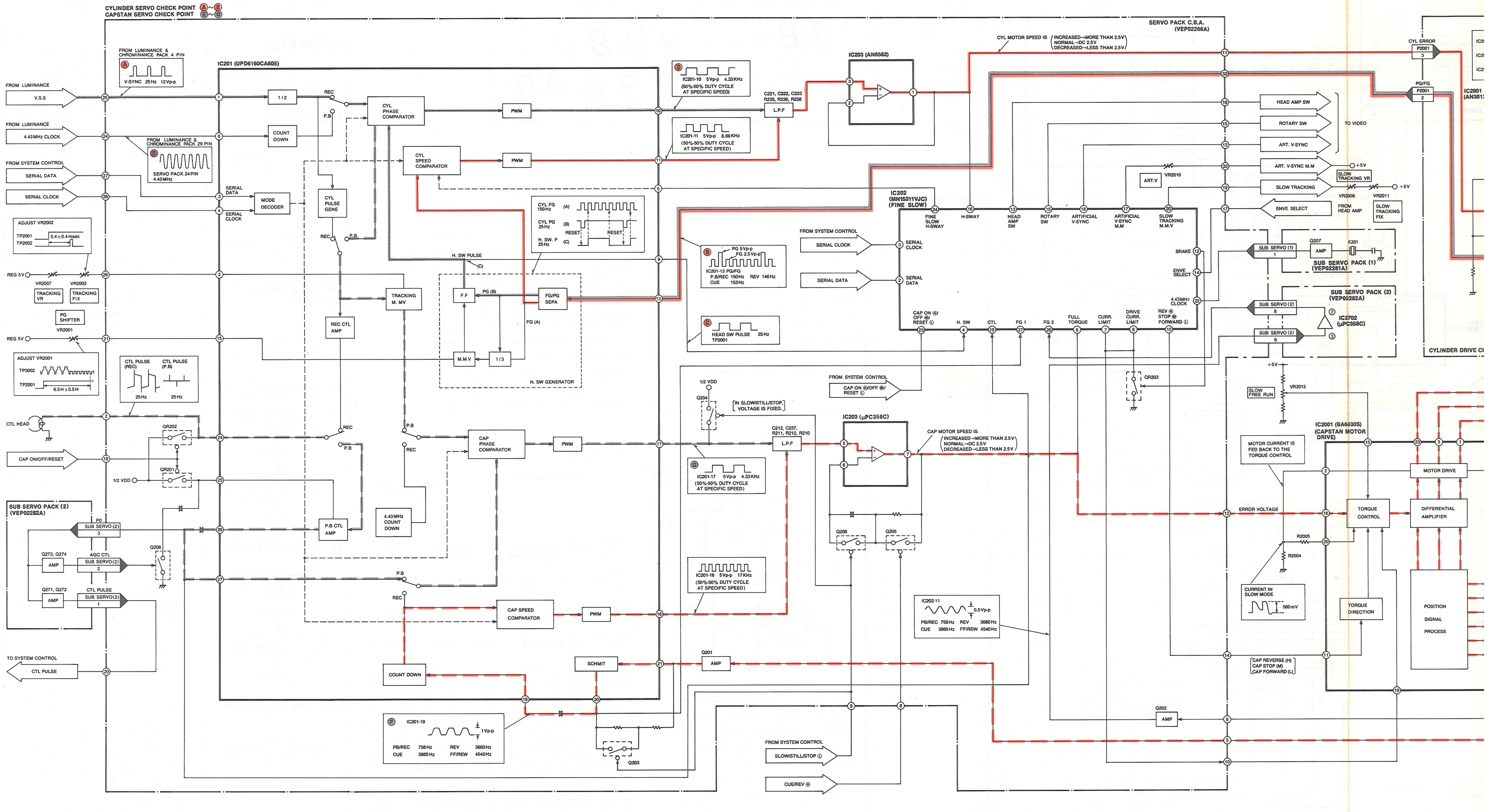
R-S TYPE FLIP-FLOP

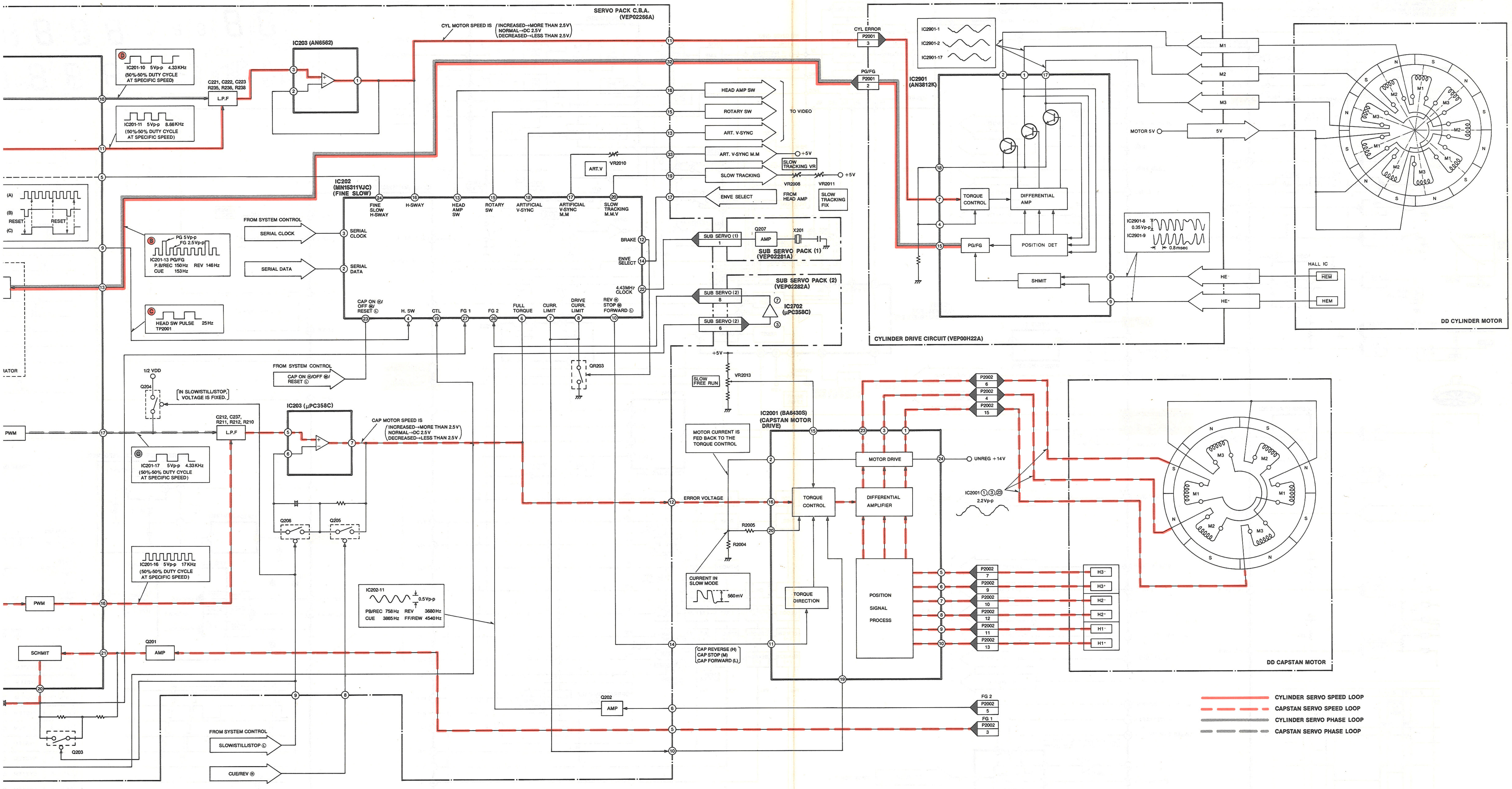
IN	(a)	L	L	⎍
	(b)	L	⎍	L
OUT	(c)	※	L	H
	(d)	◆	H	L

※ Initial condition is maintained.
◆ Initial condition is reverced.

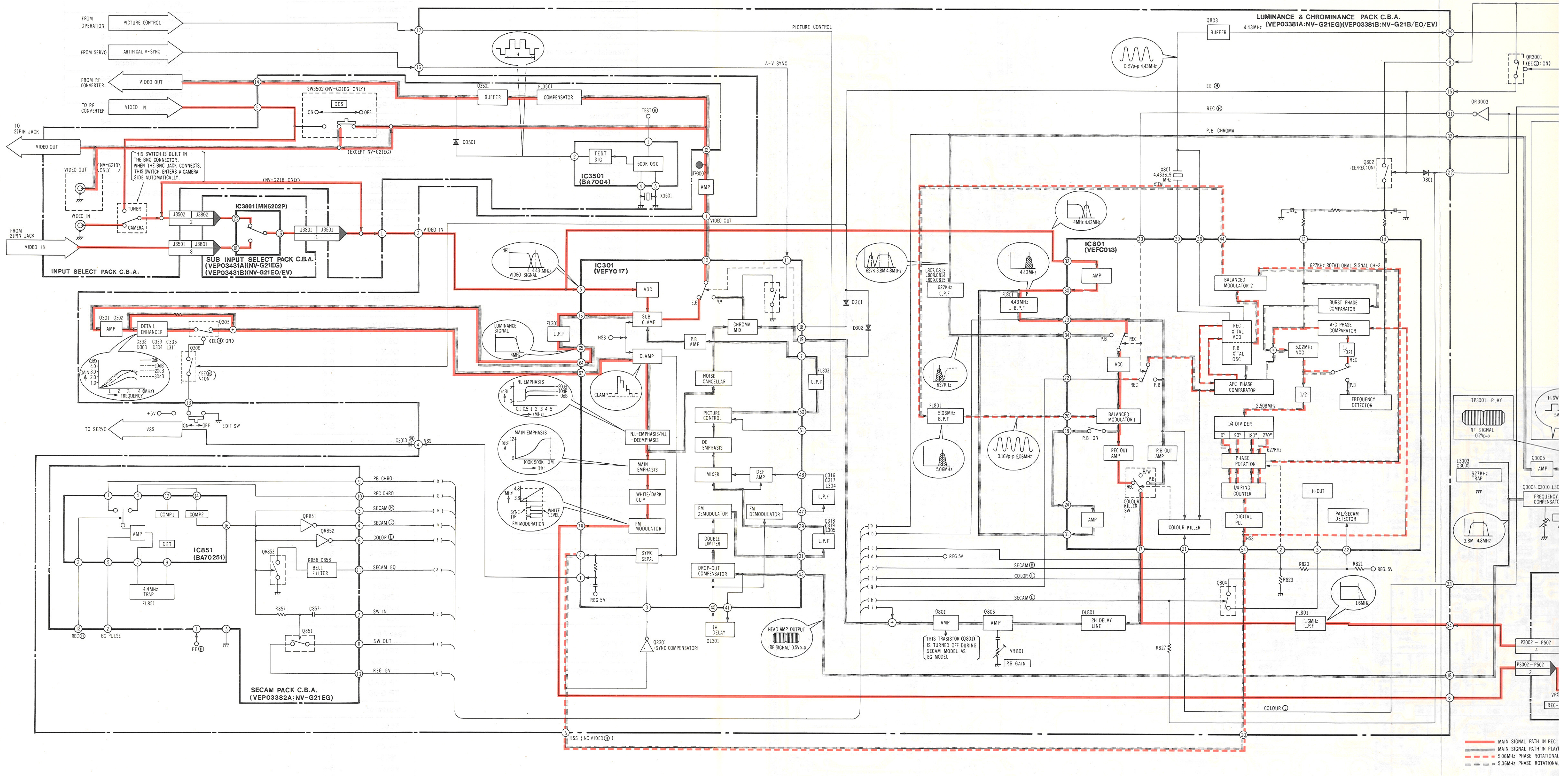
Next Page:
SERVO Section

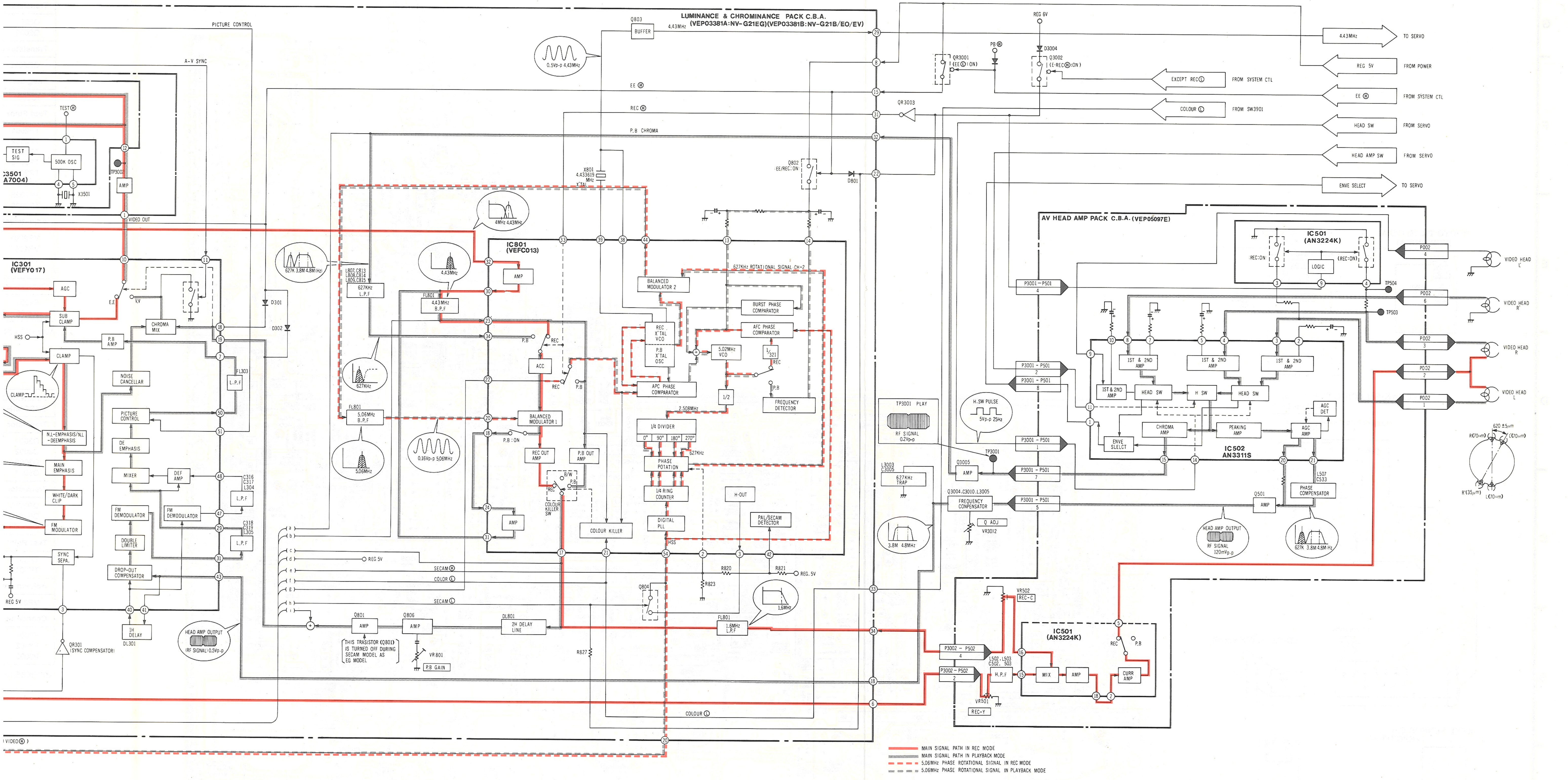
3-2. SERVO BLOCK DIAGRAM


CYLINDER SERVO CHECK POINT Ⓐ~Ⓔ
CAPSTAN SERVO CHECK POINT Ⓔ~Ⓖ
SERVO PACK C.B.A. (VEP02266A)
FROM LUMINANCE & CHROMINANCE PACK 4 PIN
Ⓐ V-SYNC 25Hz 12Vp-p
IC201 (UPD6160CA605)
FROM LUMINANCE
V.S.S
FROM LUMINANCE
4.43MHz CLOCK
FROM LUMINANCE & CHROMINANCE PACK 29 PIN
Ⓔ SERVO PACK 24PIN 4.43MHz
FROM SYSTEM CONTROL
SERIAL DATA
SERIAL CLOCK
ADJUST VR2002
TP2001
TP2002
0.4±0.4msec
REG 5V
VR2007
VR2002
TRACKING VR
TRACKING FIX
PG SHIFTER
VR2001
ADJUST VR2001
TP3002
6.5H±0.5H
CTL PULSE (REC)
CTL PULSE (P.B)
25Hz
25Hz
CTL HEAD
CAP ON/OFF/RESET
1/2 VDD
QR202
QR201
SUB SERVO PACK (2) (VEP02282A)
P0
SUB SERVO (2) 3
Q273, Q274
AMP
AGC CTL
SUB SERVO (2) 2
Q208
Q271, Q272
AMP
CTL PULSE
SUB SERVO (2) 1
TO SYSTEM CONTROL
CTL PULSE
1/2
REC
P.B
COUNT DOWN
SERIAL DATA
SERIAL CLOCK
MODE DECODER
CYL PHASE COMPARATOR
CYL SPEED COMPARATOR
CYL PULSE GENE
PWM
PWM
H. SW PULSE
(C)
TRACKING M. MV
REC CTL AMP
F.F
PG (B)
FG/PG SEPA
FG (A)
M.M.V
1/3
H. SW GENERATOR
CYL FG 150Hz (A)
CYL PG 25Hz (B)
H. SW. P 25Hz (C)
RESET
RESET
CAP PHASE COMPARATOR
PWM
P.B CTL AMP
4.43MHz COUNT DOWN
CAP SPEED COMPARATOR
PWM
COUNT DOWN
SCHMIT
Ⓕ IC201-19 1Vp-p
PB/REC 758Hz REV 3680Hz
CUE 3865Hz FF/REW 4540Hz
Q203
Ⓓ IC201-10 5Vp-p 4.33KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
IC201-11 5Vp-p 8.66KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
C221, C222, C223 R235, R236, R238
L.P.F
IC203 (AN6562)
Ⓑ PG 5Vp-p FG 2.5Vp-p
IC201-13 PG/FG
P.B/REC 150Hz REV 146Hz
CUE 153Hz
Ⓒ HEAD SW PULSE 25Hz TP2001
1/2 VDD
Q204
IN SLOW/STILL/STOP, VOLTAGE IS FIXED.
C212, C237, R211, R212, R210
L.P.F
Ⓖ IC201-17 5Vp-p 4.33KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
IC201-16 5Vp-p 17KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
Q201
AMP
FROM SYSTEM CONTROL
SLOW/STILL/STOP Ⓛ
CUE/REV Ⓗ
CYL MOTOR SPEED IS
INCREASED→MORE THAN 2.5V
NORMAL→DC 2.5V
DECREASED→LESS THAN 2.5V
IC202 (MN15311VJC) (FINE SLOW)
FINE SLOW H-SWAY
H-SWAY
HEAD AMP SW
ROTARY SW
ARTIFICIAL V-SYNC
ARTIFICIAL V-SYNC M.M
SLOW TRACKING M.M.V
FROM SYSTEM CONTROL
SERIAL CLOCK
SERIAL DATA
BRAKE
ENVE SELECT
4.43MHz CLOCK
CAP ON Ⓗ/ OFF Ⓜ/ RESET Ⓛ
H. SW
CTL
FG 1
FG 2
FULL TORQUE
CURR. LIMIT
DRIVE CURR. LIMIT
REV Ⓗ STOP Ⓜ FORWARD Ⓛ
FROM SYSTEM CONTROL
CAP ON Ⓗ/OFF Ⓜ/ RESET Ⓛ
IC203 (μPC358C)
CAP MOTOR SPEED IS
INCREASED→MORE THAN 2.5V
NORMAL→DC 2.5V
DECREASED→LESS THAN 2.5V
Q206
Q205
IC202-11 0.5Vp-p
PB/REC 758Hz REV 3680Hz
CUE 3865Hz FF/REW 4540Hz
QR203
Q202
AMP
HEAD AMP SW
ROTARY SW
ART. V-SYNC
TO VIDEO
ART. V-SYNC M.M
+5V
SLOW TRACKING VR
ART.V
VR2010
SLOW TRACKING
VR2008
VR2011
+5V
ENVE SELECT
FROM HEAD AMP
SLOW TRACKING FIX
SUB SERVO (1) 1
Q207
AMP
X201
SUB SERVO PACK (1) (VEP02281A)
SUB SERVO PACK (2) (VEP02282A)
SUB SERVO (2) 8
SUB SERVO (2) 6
IC2702 (μPC358C)
+5V
VR2013
SLOW FREE RUN
IC2001 (BA6430S) (CAPSTAN MOTOR DRIVE)
MOTOR CURRENT IS FED BACK TO THE TORQUE CONTROL
ERROR VOLTAGE
R2005
R2004
CURRENT IN SLOW MODE
560mV
TORQUE CONTROL
TORQUE DIRECTION
MOTOR DRIVE
DIFFERENTIAL AMPLIFIER
POSITION SIGNAL PROCESS
CAP REVERSE (H)
CAP STOP (M)
CAP FORWARD (L)
CYL ERROR
P2001 3
PG/FG
P2001 2
IC2901 (AN381
CYLINDER DRIVE CI


SERVO PACK C.B.A.
(VEP02266A)
CYL MOTOR SPEED IS (INCREASED→MORE THAN 2.5V / NORMAL→DC 2.5V / DECREASED→LESS THAN 2.5V)
IC203 (AN6562)
IC201-10 5Vp-p 4.33KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
C221, C222, C223 R235, R236, R238
L.P.F
IC201-11 5Vp-p 8.66KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
HEAD AMP SW
ROTARY SW
ART. V-SYNC
ART. V-SYNC M.M
SLOW TRACKING
ENVE SELECT
TO VIDEO
+5V
SLOW TRACKING VR
VR2008
VR2011
FROM HEAD AMP
SLOW TRACKING FIX
ART.V
VR2010
IC202 (MN15311VJC) (FINE SLOW)
FINE SLOW H-SWAY
H-SWAY
HEAD AMP SW
ROTARY SW
ARTIFICIAL V-SYNC
ARTIFICIAL V-SYNC M.M
SLOW TRACKING M.M.V
FROM SYSTEM CONTROL
SERIAL CLOCK
SERIAL DATA
BRAKE
ENVE SELECT
4.43MHz CLOCK
CAP ON / OFF / RESET
H. SW
CTL
FG 1
FG 2
FULL TORQUE
CURR. LIMIT
DRIVE CURR. LIMIT
REV / STOP / FORWARD
SUB SERVO (1)
Q207
AMP
X201
SUB SERVO PACK (1) (VEP02281A)
SUB SERVO PACK (2) (VEP02282A)
SUB SERVO (2)
IC2702 (μPC358C)
(A)
(B)
(C)
RESET
PG 5Vp-p
FG 2.5Vp-p
IC201-13 PG/FG
P.B/REC 150Hz REV 146Hz
CUE 153Hz
HEAD SW PULSE 25Hz
TP2001
RATOR
CYL ERROR
P2001
PG/FG
IC2901-1
IC2901-2
IC2901-17
IC2901 (AN3812K)
M1
M2
M3
MOTOR 5V
5V
TORQUE CONTROL
DIFFERENTIAL AMP
PG/FG
POSITION DET
IC2901-8 0.35Vp-p
IC2901-9
0.8msec
SHMIT
HE⁻
HE⁺
HALL IC
HEM
CYLINDER DRIVE CIRCUIT (VEP00H22A)
DD CYLINDER MOTOR
N
S
1/2 VDD
Q204
IN SLOW/STILL/STOP, VOLTAGE IS FIXED.
PWM
C212, C237, R211, R212, R210
IC203 (μPC358C)
CAP MOTOR SPEED IS (INCREASED→MORE THAN 2.5V / NORMAL→DC 2.5V / DECREASED→LESS THAN 2.5V)
FROM SYSTEM CONTROL
CAP ON / OFF / RESET
QR203
IC201-17 5Vp-p 4.33KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
Q206
Q205
IC201-16 5Vp-p 17KHz (50%-50% DUTY CYCLE AT SPECIFIC SPEED)
IC202-11 0.5Vp-p
PB/REC 758Hz REV 3680Hz
CUE 3865Hz FF/REW 4540Hz
SCHMIT
Q201
AMP
Q203
FROM SYSTEM CONTROL
SLOW/STILL/STOP
CUE/REV
Q202
+5V
SLOW FREE RUN
VR2013
MOTOR CURRENT IS FED BACK TO THE TORQUE CONTROL
ERROR VOLTAGE
R2005
R2004
CURRENT IN SLOW MODE
560mV
CAP REVERSE (H) CAP STOP (M) CAP FORWARD (L)
IC2001 (BA6430S) (CAPSTAN MOTOR DRIVE)
MOTOR DRIVE
UNREG +14V
TORQUE CONTROL
DIFFERENTIAL AMPLIFIER
TORQUE DIRECTION
POSITION SIGNAL PROCESS
IC2001 ①③㉓ 2.2Vp-p
P2002
H3⁻
H3⁺
H2⁻
H2⁺
H1⁻
H1⁺
DD CAPSTAN MOTOR
FG 2
FG 1
CYLINDER SERVO SPEED LOOP
CAPSTAN SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
CAPSTAN SERVO PHASE LOOP

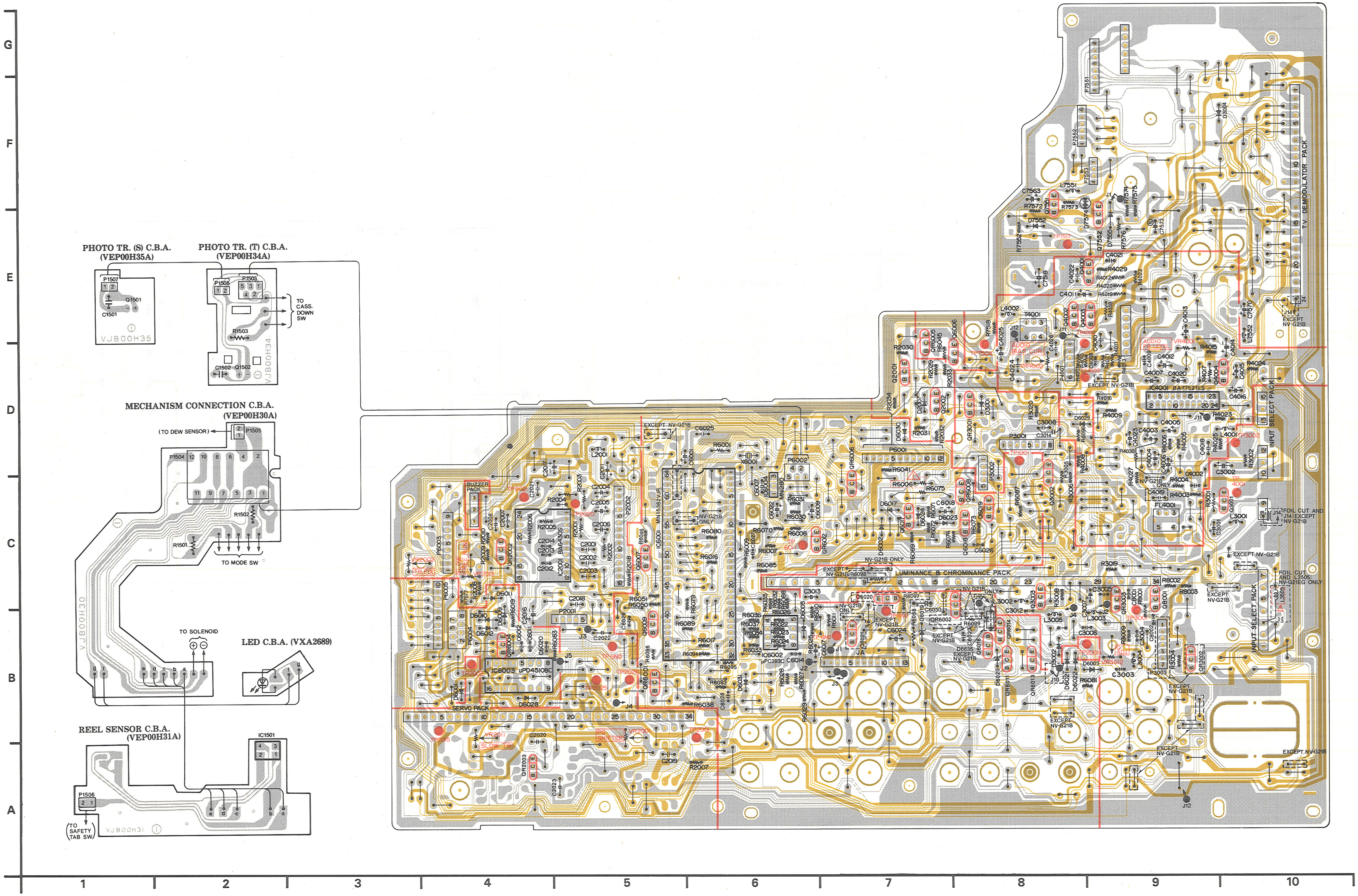
3-3. LUMINANCE & CHROMINANCE BLOCK DIAGRAM


FROM OPERATION
PICTURE CONTROL
FROM SERVO
ARTIFICAL V-SYNC
FROM RF CONVERTER
VIDEO OUT
TO RF CONVERTER
VIDEO IN
TO 21PIN JACK
VIDEO OUT
FROM 21PIN JACK
VIDEO IN
VIDEO OUT
(NV-G21B ONLY)
VIDEO IN
THIS SWITCH IS BUILT IN THE BNC CONNECTOR. WHEN THE BNC JACK CONNECTS, THIS SWITCH ENTERS A CAMERA SIDE AUTOMATICALLY.
TUNER
CAMERA
(NV-G21B ONLY)
J3502
J3802
J3501
J3801
J3801
J3501
IC3801(MN5202P)
INPUT SELECT PACK C.B.A.
SUB INPUT SELECT PACK C.B.A.
(VEP03431A)(NV-G21EG)
(VEP03431B)(NV-G21EO/EV)
SW3502 (NV-G21EG ONLY)
DBS
ON
OFF
(EXCEPT NV-G21EG)
Q3501
BUFFER
FL3501
COMPENSATOR
D3501
H
TEST Ⓗ
TEST SIG
500K OSC
IC3501
(BA7004)
X3501
TP3002
AMP
VIDEO OUT
VIDEO IN
PICTURE CONTROL
A-V SYNC
(dB)
4 4.43(MHz)
VIDEO SIGNAL
IC301
(VEFY017)
AGC
SUB CLAMP
E.E
V.V
CHROMA MIX
LUMINANCE SIGNAL
4MHz
FL301
L.P.F
HSS
CLAMP
P.B AMP
NOISE CANCELLAR
FL303
L.P.F
PICTURE CONTROL
DE EMPHASIS
MIXER
DEF AMP
C316 C317 L304
L.P.F
FM DEMODULATOR
FM DEMODULATOR
DOUBLE LIMITER
C318 C319 L305
L.P.F
DROP-OUT COMPENSATOR
1H DELAY
DL301
NL EMPHASIS
-20dB
-10dB
0dB
0.1 0.5 1 2 3 4 5 (MHz)
N.L-EMPHASIS/N.L -DEEMPHASIS
MAIN EMPHASIS
100K 500K 2M (Hz)
MAIN EMPHASIS
WHITE/DARK CLIP
4.8
3.8
SYNC TIP
WHITE LEVEL
FM MODURATION
FM MODULATOR
SYNC SEPA.
REG 5V
QR301 (SYNC COMPENSATOR)
HEAD AMP OUTPUT
(RF SIGNAL) 0.5Vp-p
D301
D302
Q301 Q302
AMP
DETAIL ENHANCER
C332 C333 C336
D303 D304 L311
Q305
(EE Ⓗ: ON)
Q306
(EE Ⓗ : ON)
GAIN
4.0
3.0
2.0
1.0
0dB
-10dB
-20dB
-30dB
1 2 3 4 (MHz)
FREQUENCY
+5V
ON
OFF
EDIT SW
TO SERVO
VSS
C3013 Ⓝ
VSS
IC851
(BA70251)
COMP1
COMP2
AMP
DET
4.4MHz TRAP
FL851
REC Ⓗ
BG PULSE
EE Ⓗ
QR851
QR852
QR853
R858 C858
BELL FILTER
R857
C857
Q851
PB CHRO
REC CHRO
SECAM Ⓗ
SECAM Ⓛ
COLOR Ⓛ
SECAM EQ
SW IN
SW OUT
REG 5V
SECAM PACK C.B.A.
(VEP03382A:NV-G21EG)
627K 3.8M 4.8M (Hz)
L807.C813
L808.C814
L809.C815
627KHz L.P.F
627KHz
FL801
5.06MHz B.P.F
5.06MHz
0.5Vp-p 4.43MHz
Q803
BUFFER
4.43MHz
LUMINANCE & CHROMINANCE PACK C.B.A.
(VEP03381A:NV-G21EG)(VEP03381B:NV-G21B/EO/EV)
EE Ⓗ
REC Ⓗ
P.B CHROMA
X801
4.433619 MHz
X'TAL
Q802
(EE/REC:ON)
D801
QR3001
(EE Ⓛ : ON)
QR3003
4MHz 4.43MHz
IC801
(VEFC013)
AMP
4.43MHz
FL801
4.43MHz B.P.F
P.B
REC
ACC
REC
P.B
BALANCED MODULATOR 1
P.B : ON
REC OUT AMP
P.B OUT AMP
B/W
P.B
REC
COLOUR KILLER SW
AMP
0.16Vp-p 5.06MHz
BALANCED MODULATOR 2
627KHz ROTATIONAL SIGNAL CH-2
BURST PHASE COMPARATOR
AFC PHASE COMPARATOR
REC X'TAL VCO
P.B X'TAL OSC
5.02MHz VCO
1/321
REC
P.B
APC PHASE COMPARATOR
1/2
FREQUENCY DETECTOR
2.508MHz
1/4 DIVIDER
0° 90° 180° 270°
627KHz
PHASE POTATION
1/4 RING COUNTER
DIGITAL PLL
HSS
H-OUT
PAL/SECAM DETECTOR
COLOUR KILLER
REG 5V
SECAM Ⓗ
COLOR Ⓛ
SECAM Ⓛ
R820
R821
REG. 5V
R823
Q804
1.6MHz
FL801
1.6MHz L.P.F
Q801
AMP
Q806
AMP
DL801
2H DELAY LINE
THIS TRASISTOR (Q801) IS TURNED OFF DURING SECAM MODEL AS EG MODEL
VR801
P.B GAIN
R827
COLOUR Ⓛ
HSS (NO VIDEO Ⓡ)
TP3001 PLAY
RF SIGNAL
0.2Vp-p
H.SW
5V
L3003
C3005
627KHz TRAP
Q3005
AMP
Q3004.C3010.L30
FREQUENCY CONPENSAT
3.8M 4.8MHz
P3002 - P502
P3002 - P502
VR5
REC-
MAIN SIGNAL PATH IN REC
MAIN SIGNAL PATH IN PLAY
5.06MHz PHASE ROTATIONAL
5.06MHz PHASE ROTATIONAL


LUMINANCE & CHROMINANCE PACK C.B.A.
(VEP03381A:NV-G21EG)(VEP03381B:NV-G21B/EO/EV)
PICTURE CONTROL
A-V SYNC
TEST
TEST SIG
500K OSC
X3501
AMP
TP3001
VIDEO OUT
IC301
(VEFY017)
AGC
SUB CLAMP
CLAMP
HSS
N.L-EMPHASIS/N.L-DEEMPHASIS
MAIN EMPHASIS
WHITE/DARK CLIP
FM MODULATOR
SYNC SEPA.
REG 5V
QR301
(SYNC COMPENSATOR)
CHROMA MIX
P.B AMP
NOISE CANCELLAR
PICTURE CONTROL
DE EMPHASIS
MIXER
DEF AMP
FM DEMODULATOR
DOUBLE LIMITER
DROP-OUT COMPENSATOR
1H DELAY
DL301
HEAD AMP OUTPUT
(RF SIGNAL) 0.5Vp-p
L.P.F
FL303
D301
D302
Q803
BUFFER
4.43MHz
0.5Vp-p 4.43MHz
EE
REC
P.B CHROMA
X801
4.433619 MHz
X'TAL
627K 3.8M 4.8M(Hz)
L807,C813
L808,C814
L809,C815
627KHz L.P.F
4MHz 4.43MHz
IC801
(VEFC013)
AMP
FL801
4.43MHz B.P.F
627KHz
FL801
5.06MHz B.P.F
5.06MHz
0.16Vp-p 5.06MHz
ACC
BALANCED MODULATOR 1
BALANCED MODULATOR 2
REC OUT AMP
P.B OUT AMP
COLOUR KILLER SW
COLOUR KILLER
REC X'TAL VCO
P.B X'TAL OSC
APC PHASE COMPARATOR
BURST PHASE COMPARATOR
AFC PHASE COMPARATOR
5.02MHz VCO
1/321
1/2
FREQUENCY DETECTOR
627KHz ROTATIONAL SIGNAL CH-2
2.508MHz
1/4 DIVIDER
0° 90° 180° 270°
PHASE ROTATION
1/4 RING COUNTER
DIGITAL PLL
H-OUT
PAL/SECAM DETECTOR
Q802
EE/REC:ON
D801
REG 5V
SECAM
COLOR
R820
R821
R823
Q804
Q801
Q806
AMP
THIS TRANSISTOR (Q801) IS TURNED OFF DURING SECAM MODEL AS EG MODEL
VR801
P.B GAIN
DL801
2H DELAY LINE
R827
FL801
1.6MHz L.P.F
1.6MHz
COLOUR
VIDEO
REG 6V
PB
QR3001
(EE:ON)
D3004
Q3002
(E-REC:ON)
QR3003
EXCEPT REC
FROM SYSTEM CTL
COLOUR
FROM SW3901
4.43MHz
TO SERVO
REG 5V
FROM POWER
EE
FROM SYSTEM CTL
HEAD SW
FROM SERVO
HEAD AMP SW
FROM SERVO
ENVE SELECT
TO SERVO
AV HEAD AMP PACK C.B.A. (VEP05097E)
IC501
(AN3224K)
REC:ON
LOGIC
TP504
TP503
P3001-P501
P002
VIDEO HEAD L
VIDEO HEAD R
1ST & 2ND AMP
HEAD SW
H SW
ENVE SELECT
CHROMA AMP
PEAKING AMP
AGC AMP
AGC DET
IC502
AN3311S
PHASE COMPENSATOR
L507
C533
Q501
AMP
HEAD AMP OUTPUT
RF SIGNAL 120mVp-p
627K 3.8M 4.8M Hz
TP3001 PLAY
RF SIGNAL 0.2Vp-p
H.SW PULSE
5Vp-p 25Hz
TP3001
Q3005
AMP
L3003
C3005
627KHz TRAP
Q3004,C3010,L3005
FREQUENCY CONPENSATOR
Q ADJ
VR3012
3.8M 4.8MHz
R(70μm) L(70μm)
R'(35μm) L'(70μm)
620 ±5μm
VR502
REC-C
IC501
(AN3224K)
REC
P.B
P3002-P502
L502,L503
C502,503
H.P.F
MIX
AMP
CURR AMP
VR501
REC-Y
MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
5.06MHz PHASE ROTATIONAL SIGNAL IN REC MODE
5.06MHz PHASE ROTATIONAL SIGNAL IN PLAYBACK MODE

Next Page:
MAIN C.B.A. Section

3-4. MAIN C.B.A. (VEP03440A: NV-G21EG) (VEP03440C: NV-G21B) (VEP03440B: NV-G21EO/EV)


G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
PHOTO TR. (S) C.B.A. (VEP00H35A)
PHOTO TR. (T) C.B.A. (VEP00H34A)
TO CASS. DOWN SW
MECHANISM CONNECTION C.B.A. (VEP00H30A)
(TO DEW SENSOR)
TO MODE SW
TO SOLENOID
LED C.B.A. (VXA2689)
REEL SENSOR C.B.A. (VEP00H31A)
(TO SAFETY TAB SW)
IC1501
P1506
VJB00H35
VJB00H34
VJB00H30
VJB00H31
T.V. DEMODULATOR PACK
LUMINANCE & CHROMINANCE PACK
SERVO PACK
BUZZER PACK
INPUT SELECT PACK
EXCEPT NV-G21B
NV-G21B ONLY
FOIL CUT AND J14 EXCEPT NV-G21B
FOIL CUT AND L3505 NV-G21EG ONLY
IC6001 MN15362VJR
IC2001 BA6430S
IC6003 µPD4510BC
IC4001 BA7521LS
IC6002 µPC393C
AUDIO BIAS CUR.
AUDIO REC LEVEL

MAIN C.B.A. ADDRESS INFORMATIONS

SERVO SECTION	
Transistor	
Q2001	D-7
Q2002	D-7
Transistor & Resistor	
QR2002	C-4
Integrated Circuit	
IC2001	C-4
Test Point	
TP2001	A-6
TP2002	B-4
TP2009	B-8
TP2015	B-4
TP2020	C-5
TP2021	C-4
TP2025	B-5
TP2026	B-5
Adjustment	
VR2001	B-5
VR2002	C-3
VR2011	B-4
VR2013	C-4
Connector	
P2001	B-5
P2002	C-5

ADDRESS INFORMATION

LUMINANCE & CHROMINANCE SECTION	
Transistor	
Q3001	C-10
Q3002	C-8
Q3003	C-8
Q8001	C-9
Transistor & Resistor	
QR3001	D-8
QR3002	B-9
QR3003	C-9
Test Point	
TP3001	C-9
TP3002	D-10
Adjustment	
VR3012	B-9
Connector	
P3001	D-8
P3002	C-8
P3003	B-9

ADDRESS INFORMATION

AUDIO SECTION	
Transistor	
Q4001	E-9
Q4002	E-8
Q4003	E-9
Q4004	D-10
Integrated Circuit	
IC4001	D-9
Test Point	
TP4001	C-10
TP4002	D-9
TP4003	D-9
Adjustment	
VR4001	D-9
VR4002	D-8
Connector	
P4001	E-8

ADDRESS INFORMATION

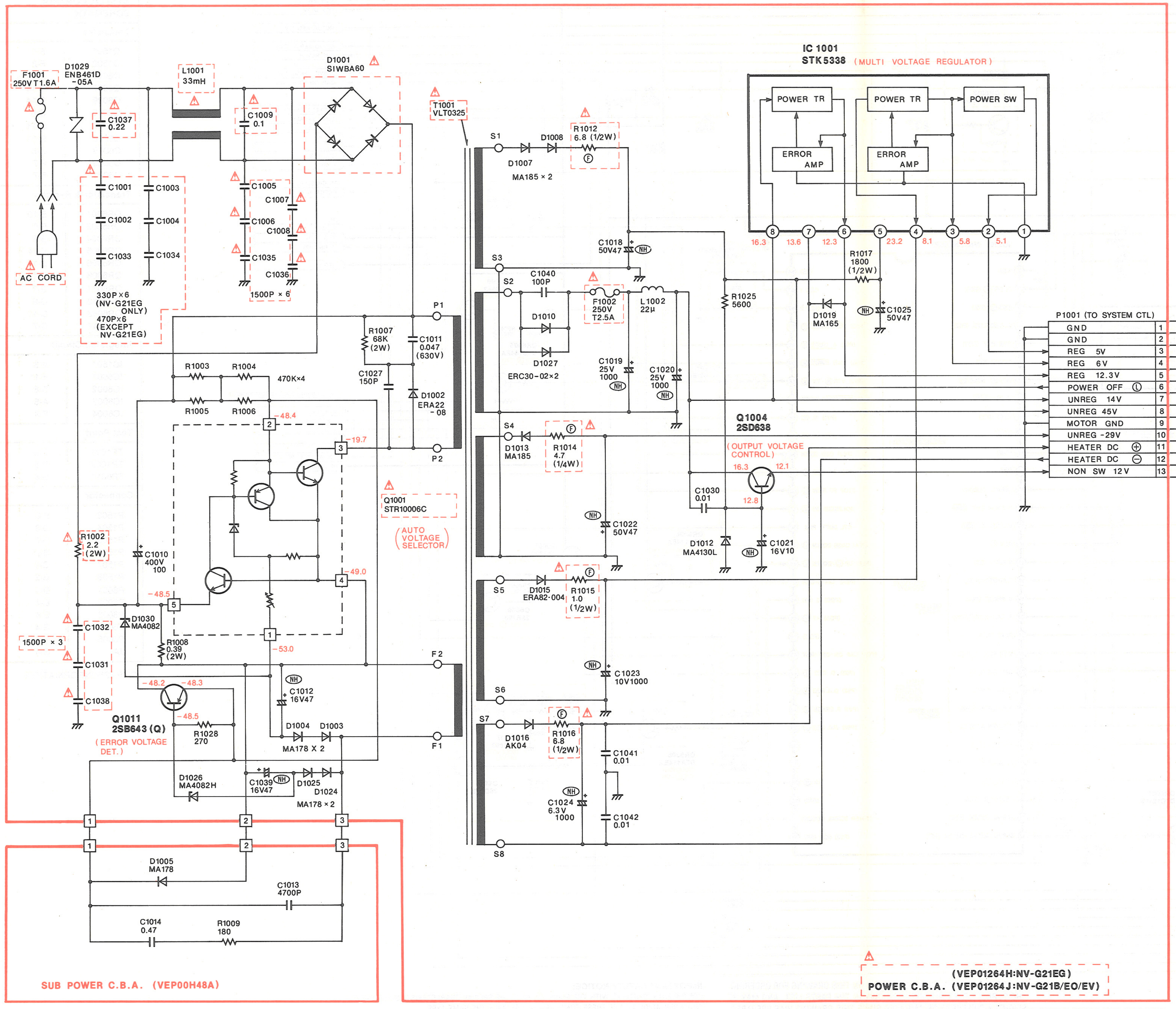
SYSTEM CONTROL SECTION	
Transistor	
Q6006	D-8
Q6007	C-5
Q6009	B-5
Q6016	B-8
Q6017	C-7
Q6018	C-8
Q6019	C-8
Q6020	B-7
Q6021	B-7
Transistor & Resistor	
QR6001	B-5
QR6002	B-8
QR6004	B-4
QR6005	D-7
QR6006	D-7
QR6008	C-8
QR6011	B-8
QR6012	C-6
QR6013	B-8
QR6014	B-8
Integrated Circuit	
IC6001	C-6
IC6002	B-6
IC6003	B-4
IC6004	C-6
Test Point	
TP1001	D-8
TP1002	C-7
TP6011	C-6
TP GND	B-5
TP GND	B-7
Connector	
P6001	D-7
P6002	D-6
P6003	C-4
P6004	B-4
P6005	B-4
JA	B-7

ADDRESS INFORMATION

CH SELECT INTERFACE SECTION	
Transistor	
Q7551	F-8
Q7552	E-9
Integrated Circuit	
IC7551	F-9
Test Point	
TP7504	D-8
TP7517	E-8
Connector	
P7551	F-9
P7552	F-9
P7553	F-9

ADDRESS INFORMATION

3-5. POWER SCHEMATIC DIAGRAM

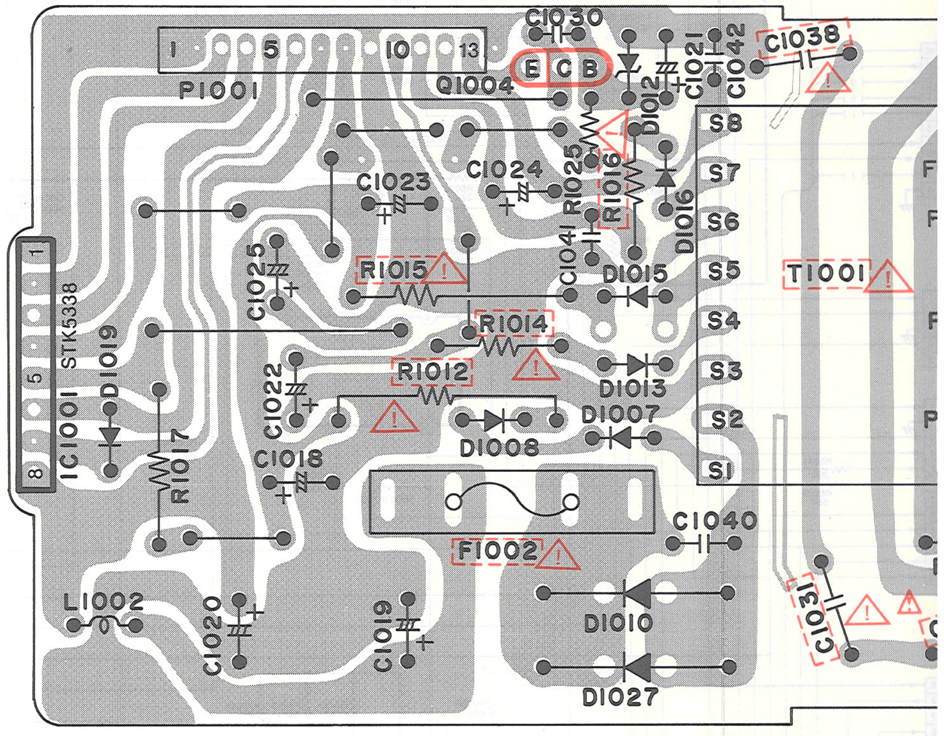

F1001 250V T1.6A
D1029 ENB461D -05A
L1001 33mH
C1037 0.22
C1009 0.1
D1001 SIWBA60
T1001 VLT0325
AC CORD
C1001
C1002
C1033
C1003
C1004
C1034
330P×6 (NV-G21EG ONLY) 470P×6 (EXCEPT NV-G21EG)
C1005
C1006
C1007
C1008
C1035
C1036
1500P × 6
R1003
R1004
R1005
R1006
470K×4
R1007 68K (2W)
C1011 0.047 (630V)
C1027 150P
D1002 ERA22 -08
P1
P2
Q1001 STR10006C
(AUTO VOLTAGE SELECTOR)
R1002 2.2 (2W)
C1010 400V 100
D1030 MA4082
R1008 0.39 (2W)
C1032
C1031
C1038
1500P × 3
Q1011 2SB643 (Q) (ERROR VOLTAGE DET.)
R1028 270
C1012 16V47
D1004 D1003 MA178 X 2
D1026 MA4082H
C1039 16V47
D1025 D1024 MA178 × 2
F2
F1
-48.4
-19.7
-49.0
-48.5
-53.0
-48.2
-48.3
-48.5
S1
D1008
D1007 MA185 × 2
R1012 6.8 (1/2W)
S3
S2
C1040 100P
D1010
D1027 ERC30-02×2
F1002 250V T2.5A
L1002 22μ
C1018 50V47
C1019 25V 1000
C1020 25V 1000
S4
D1013 MA185
R1014 4.7 (1/4W)
C1022 50V47
S5
D1015 ERA82-004
R1015 1.0 (1/2W)
C1023 10V1000
S6
S7
D1016 AK04
R1016 6.8 (1/2W)
C1041 0.01
C1024 6.3V 1000
C1042 0.01
S8
IC 1001 STK5338 (MULTI VOLTAGE REGULATOR)
POWER TR
POWER TR
POWER SW
ERROR AMP
ERROR AMP
16.3
13.6
12.3
23.2
8.1
5.8
5.1
R1017 1800 (1/2W)
R1025 5600
D1019 MA165
C1025 50V47
Q1004 2SD638 (OUTPUT VOLTAGE CONTROL)
16.3
12.1
12.8
C1030 0.01
D1012 MA4130L
C1021 16V10
P1001 (TO SYSTEM CTL)
GND 1 JA-1
GND 2 JA-2
REG 5V 3 JA-3
REG 6V 4 JA-4
REG 12.3V 5 JA-5
POWER OFF Ⓛ 6 JA-6
UNREG 14V 7 JA-7
UNREG 45V 8 JA-8
MOTOR GND 9 JA-9
UNREG -29V 10 JA-10
HEATER DC ⊕ 11 JA-11
HEATER DC ⊖ 12 JA-12
NON SW 12V 13 JA-13
1 2 3
SUB POWER C.B.A. (VEP00H48A)
D1005 MA178
C1013 4700P
C1014 0.47
R1009 180
(VEP01264H:NV-G21EG)
POWER C.B.A. (VEP01264J:NV-G21B/EO/EV)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

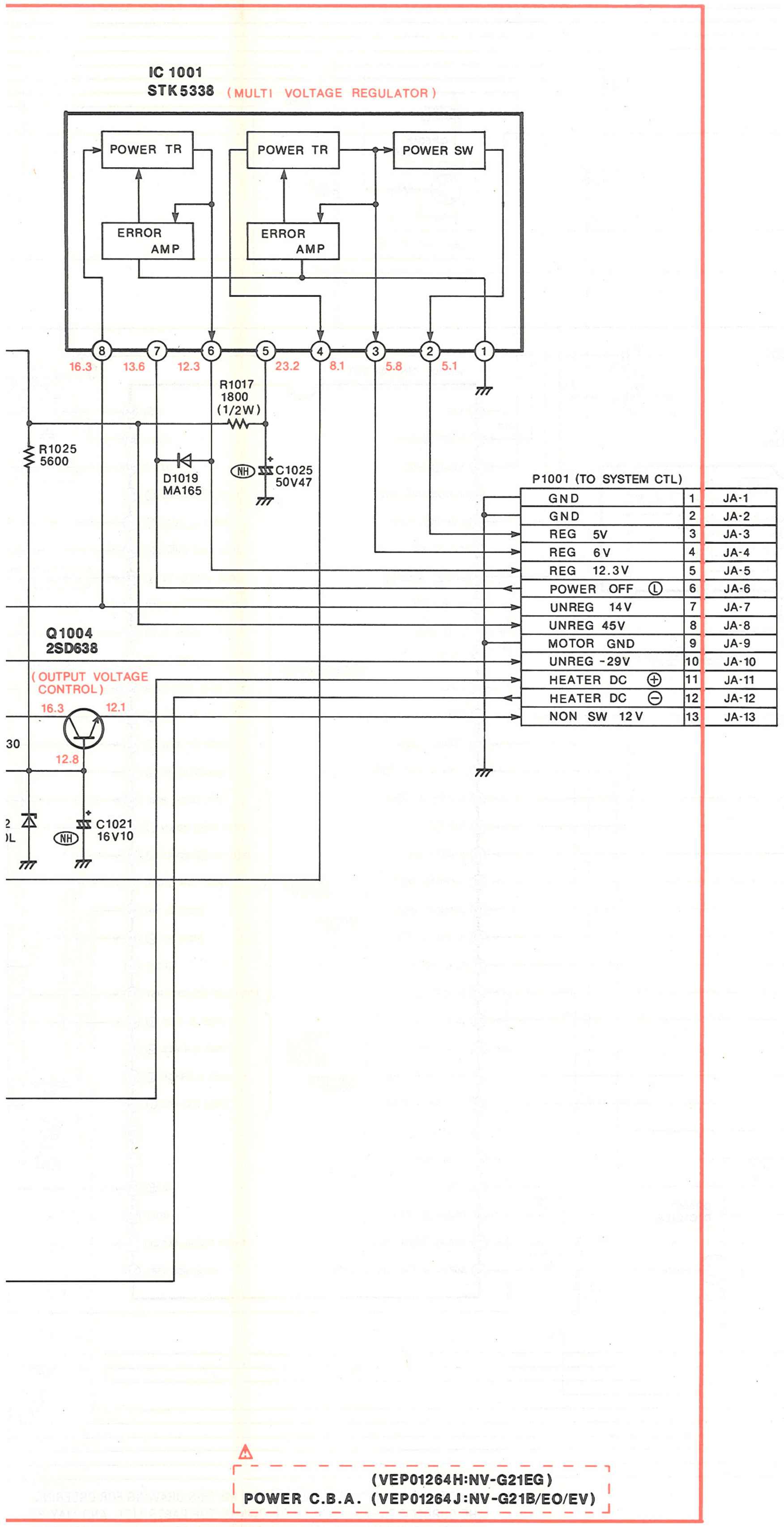
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE
SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

3-6. POWER C.B.A. (VEP01264H: NV-G21EG) (VEP0


IC1001 STK5338
P1001
Q1004
E C B
C1030
C1038
C1021
C1042
D1012
D1016
R1025
R1016
C1041
C1023
C1024
C1025
R1015
D1015
R1014
R1012
D1013
C1022
D1007
D1008
D1019
R1017
C1018
F1002
C1040
L1002
C1020
C1019
D1010
D1027
C1031
T1001
S8
S7
S6
S5
S4
S3
S2
S1

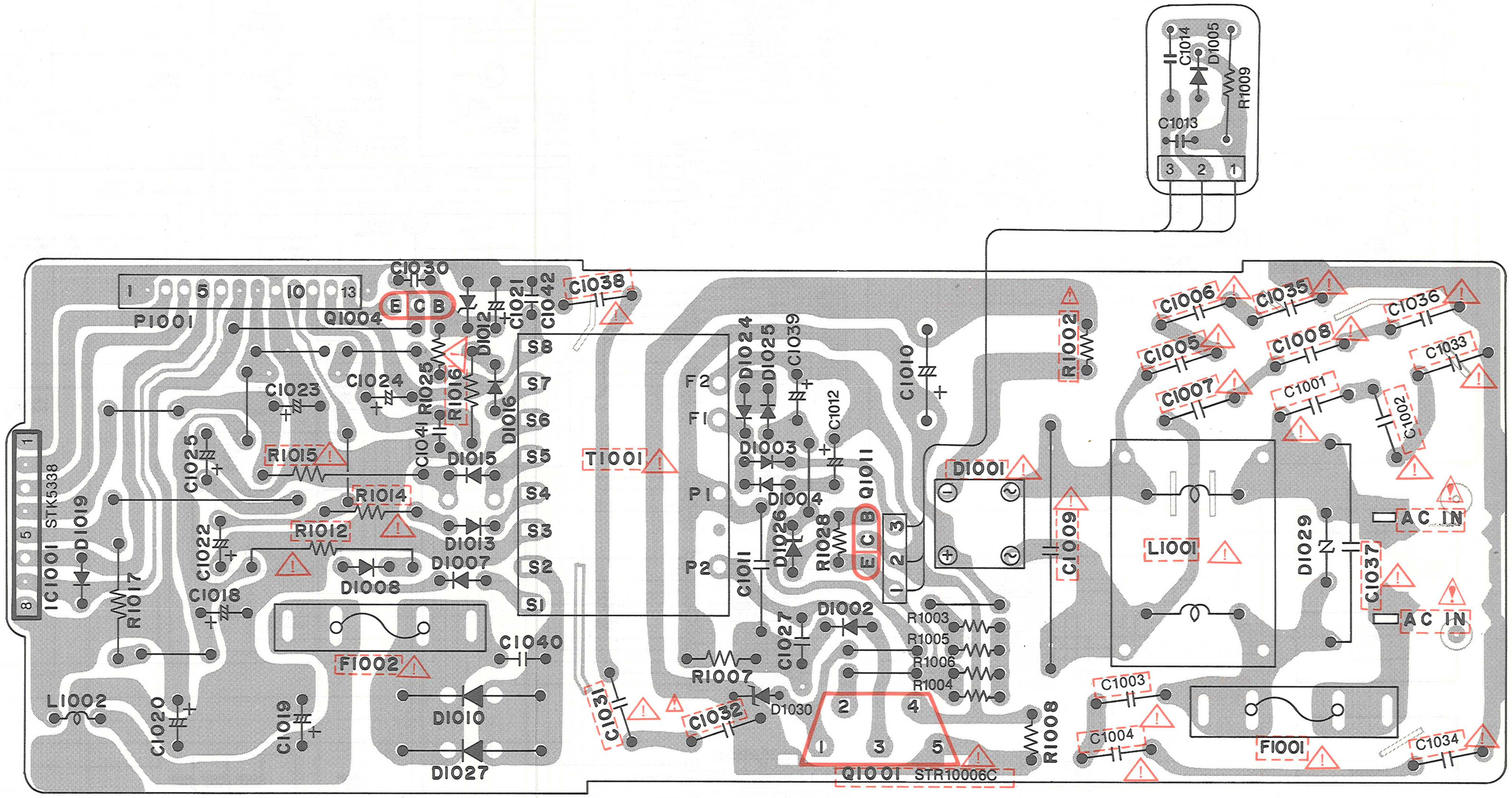
3-6. POWER C.B.A. (VEP01264H: NV-G21EG) (VEP01264J: NV-G21B/EO/EV)


IC 1001
STK5338 (MULTI VOLTAGE REGULATOR)
POWER TR
ERROR AMP
POWER TR
ERROR AMP
POWER SW
8 7 6 5 4 3 2 1
16.3
13.6
12.3
23.2
8.1
5.8
5.1
R1017
1800
(1/2W)
R1025
5600
D1019
MA165
NH
C1025
50V47
P1001 (TO SYSTEM CTL)
GND 1 JA-1
GND 2 JA-2
REG 5V 3 JA-3
REG 6V 4 JA-4
REG 12.3V 5 JA-5
POWER OFF Ⓛ 6 JA-6
UNREG 14V 7 JA-7
UNREG 45V 8 JA-8
MOTOR GND 9 JA-9
UNREG -29V 10 JA-10
HEATER DC ⊕ 11 JA-11
HEATER DC ⊖ 12 JA-12
NON SW 12V 13 JA-13
Q1004
2SD638
(OUTPUT VOLTAGE CONTROL)
16.3
12.1
12.8
30
C1021
16V10
NH
⚠
(VEP01264H:NV-G21EG)
POWER C.B.A. (VEP01264J:NV-G21B/EO/EV)

ERISTICS FOR SAFETY.

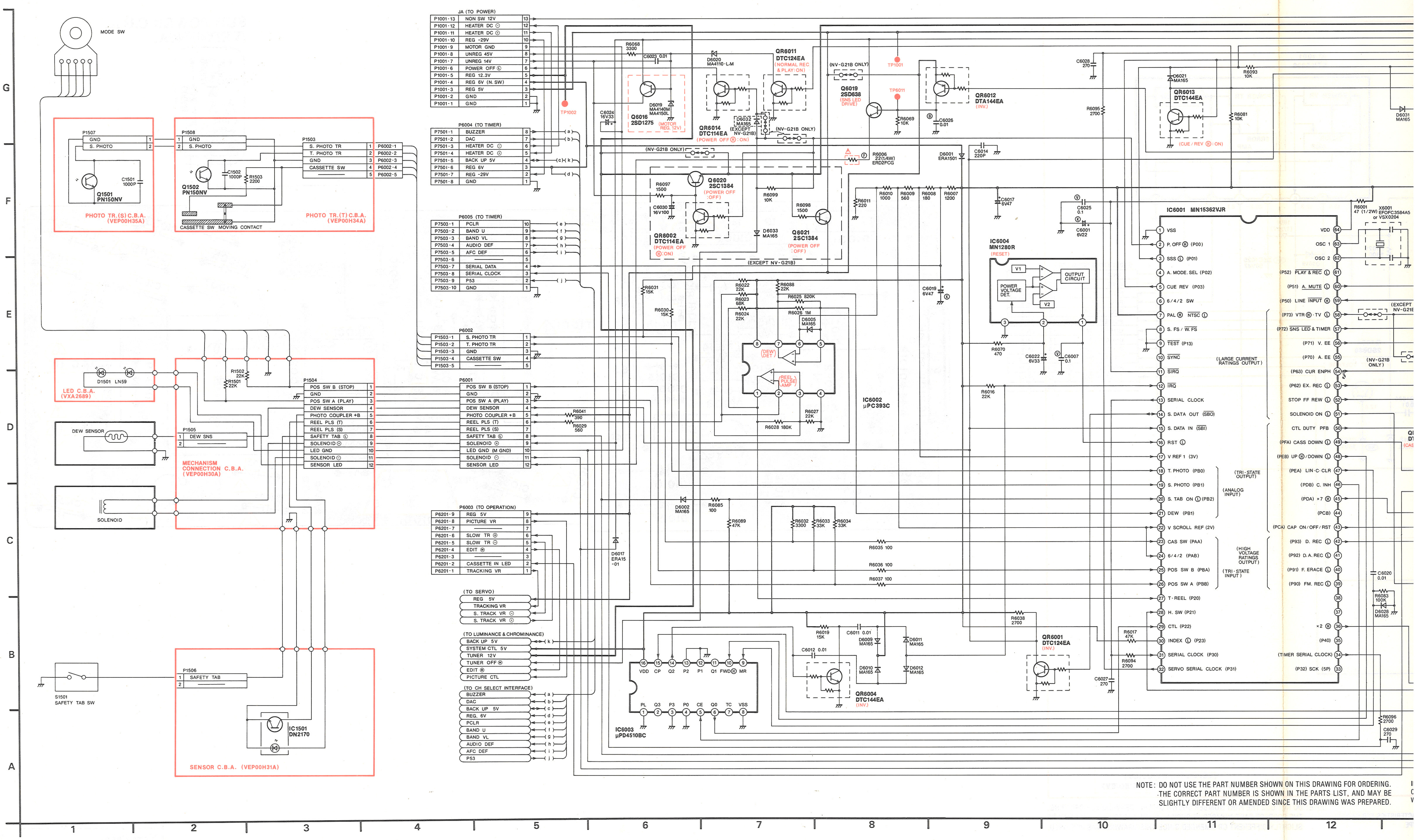
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

SUB POWER C.B.A.
(VEP00H48A)


C1014
D1005
R1009
C1013
3 2 1
P1001
Q1004
E C B
C1030
C1021
C1042
C1038
D1012
S8
S7
S6
S5
S4
S3
S2
S1
C1024
C1023
R1025
R1016
C1041
D1016
D1015
R1015
R1014
R1012
D1013
D1007
D1008
C1025
C1022
C1018
IC1001 STK5338
D1019
R1017
F1002
C1040
D1010
D1027
L1002
C1020
C1019
T1001
F2
F1
P1
P2
D1024
D1025
C1039
C1012
D1003
D1004
D1026
R1028
Q1011
E C B
C1011
C1027
D1002
R1007
D1030
C1031
C1032
R1003
R1005
R1006
R1004
Q1001 STR10006C
1 2 3 4 5
C1010
R1002
D1001
C1009
R1008
C1006
C1035
C1036
C1005
C1008
C1033
C1007
C1001
C1002
L1001
D1029
C1037
AC IN
AC IN
C1003
C1004
F1001
C1034

Next Page:
SYSTEM CONTROL Section

3-7. SYSTEM CONTROL SCHEMATIC DIAGRAM


MODE SW
JA (TO POWER)
P1001-13 NON SW 12V
P1001-12 HEATER DC ⊖
P1001-11 HEATER DC ⊕
P1001-10 REG -29V
P1001-9 MOTOR GND
P1001-8 UNREG 45V
P1001-7 UNREG 14V
P1001-6 POWER OFF Ⓛ
P1001-5 REG 12.3V
P1001-4 REG 6V (N. SW)
P1001-3 REG 5V
P1001-2 GND
P1001-1 GND
P6004 (TO TIMER)
P7501-1 BUZZER
P7501-2 DAC
P7501-3 HEATER DC ⊖
P7501-4 HEATER DC ⊕
P7501-5 BACK UP 5V
P7501-6 REG 6V
P7501-7 REG -29V
P7501-8 GND
P6005 (TO TIMER)
P7503-1 PCLR
P7503-2 BAND U
P7503-3 BAND VL
P7503-4 AUDIO DEF
P7503-5 AFC DEF
P7503-7 SERIAL DATA
P7503-8 SERIAL CLOCK
P7503-9 P53
P7503-10 GND
P1507
GND
S. PHOTO
Q1501 PN150NV
C1501 1000P
PHOTO TR.(S) C.B.A. (VEP00H35A)
P1508
P1503
S. PHOTO TR
T. PHOTO TR
GND
CASSETTE SW
Q1502 PN150NV
C1502 1000P
R1503 2200
CASSETTE SW MOVING CONTACT
PHOTO TR.(T) C.B.A. (VEP00H34A)
P6002
P1503-1 S. PHOTO TR
P1503-2 T. PHOTO TR
P1503-3 GND
P1503-4 CASSETTE SW
D1501 LN59
LED C.B.A. (VXA2689)
R1502 22K
R1501 22K
P1504
P6001
POS SW B (STOP)
GND
POS SW A (PLAY)
DEW SENSOR
PHOTO COUPLER +B
REEL PLS (T)
REEL PLS (S)
SAFETY TAB Ⓛ
SOLENOID ⊕
LED GND
LED GND (M GND)
SOLENOID ⊖
SENSOR LED
DEW SENSOR
P1505
DEW SNS
MECHANISM CONNECTION C.B.A. (VEP00H30A)
SOLENOID
S1501 SAFETY TAB SW
P1506
SAFETY TAB
IC1501 DN2170
SENSOR C.B.A. (VEP00H31A)
P6003 (TO OPERATION)
P6201-9 REG 5V
P6201-8 PICTURE VR
P6201-6 SLOW TR ⊕
P6201-5 SLOW TR ⊖
P6201-4 EDIT Ⓗ
P6201-2 CASSETTE IN LED
P6201-1 TRACKING VR
(TO SERVO)
REG 5V
TRACKING VR
S. TRACK VR ⊕
S. TRACK VR ⊖
(TO LUMINANCE & CHROMINANCE)
BACK UP 5V
SYSTEM CTL 5V
TUNER 12V
TUNER OFF Ⓗ
EDIT Ⓗ
PICTURE CTL
(TO CH SELECT INTERFACE)
BUZZER
DAC
BACK UP 5V
REG. 6V
PCLR
BAND U
BAND VL
AUDIO DEF
AFC DEF
P53
TP1002
R6068 3300
C6023 0.01
Q6016 2SD1275
D6019 MA4140M MA4150L
(MOTOR REG. 12V)
C6024 16V33
D6020 MA4110-L-M
QR6014 DTC114EA
(POWER OFF Ⓗ : ON)
D6032 MA165 (EXCEPT NV-G21B)
QR6011 DTC124EA
(NORMAL REC & PLAY: ON)
(NV-G21B ONLY)
Q6019 2SD638
(SNS LED DRIVE)
TP1001
TP6011
R6069 10K
C6026 0.01
QR6012 DTA144EA
(INV.)
R6006 22 (1/4W) ERD2FCG
D6001 ERA1501
C6014 220P
C6028 270
R6095 2700
D6021 MA165
QR6013 DTC144EA
R6093 10K
R6081 10K
(CUE / REV Ⓗ : ON)
D6031 MA165
R6097 1500
Q6020 2SC1384
(POWER OFF : OFF)
C6030 16V100
QR6002 DTC114EA
(POWER OFF Ⓗ : ON)
R6099 10K
R6098 1500
D6033 MA165
Q6021 2SC1384
(POWER OFF : OFF)
(EXCEPT NV-G21B)
R6011 220
R6010 1000
R6009 560
R6008 180
R6007 1200
C6017 6V47
C6025 0.1
C6001 6V22
IC6004 MN1280R
(RESET)
POWER VOLTAGE DET.
OUTPUT CIRCUIT
R6070 470
C6022 6V33
C6007 0.1
R6031 15K
R6030 15K
R6022 22K
R6023 68K
R6024 22K
R6088 22K
R6025 820K
R6026 1M
D6005 MA165
(DEW DET.)
(REEL PULSE AMP)
R6027 22K
R6028 180K
C6019 6V47
IC6002 μPC393C
R6041 390
R6029 560
R6016 22K
D6002 MA165
R6085 100
R6089 47K
D6017 ERA15-01
R6032 3300
R6033 33K
R6034 33K
R6035 100
R6036 100
R6037 100
R6038 2700
R6019 15K
C6011 0.01
D6009 MA165
D6011 MA165
C6012 0.01
D6010 MA165
D6012 MA165
QR6004 DTC144EA
(INV.)
QR6001 DTC124EA
(INV.)
C6027 270
R6017 47K
R6094 2700
IC6003 μPD4510BC
VDD CP Q2 P2 P1 Q1 FWD Ⓗ MR
PL Q3 P3 PO CE Q0 TC VSS
IC6001 MN15362VJR
1 VSS
2 P. OFF Ⓗ (P00)
3 SSS Ⓛ (P01)
4 A. MODE. SEL (P02)
5 CUE REV (P03)
6 6/4/2 SW
7 PAL Ⓗ NTSC Ⓛ
8 S. FS / W. FS
9 TEST (P13)
10 SYNC
11 SIRQ
12 IRQ
13 SERIAL CLOCK
14 S. DATA OUT (SBO)
15 S. DATA IN (SBI)
16 RST Ⓛ
17 V REF 1 (3V)
18 T. PHOTO (PB0)
19 S. PHOTO (PB1)
20 S. TAB ON Ⓛ (PB2)
21 DEW (PB1)
22 V SCROLL REF (2V)
23 CAS SW (PAA)
24 6/4/2 (PAB)
25 POS SW B (PBA)
26 POS SW A (PBB)
27 T-REEL (P20)
28 H. SW (P21)
29 CTL (P22)
30 INDEX Ⓛ (P23)
31 SERIAL CLOCK (P30)
32 SERVO SERIAL CLOCK (P31)
64 VDD
63 OSC 1
62 OSC 2
61 (P52) PLAY & REC Ⓛ
60 (P51) A. MUTE Ⓛ
59 (P50) LINE INPUT Ⓗ
58 (P73) VTR Ⓗ · TV Ⓛ
57 (P72) SNS LED & TIMER
56 (P71) V. EE
55 (P70) A. EE
54 (P63) CUR ENPH
53 (P62) EX. REC Ⓛ
52 STOP FF REW Ⓛ
51 SOLENOID ON Ⓛ
50 CTL DUTY PFB
49 (PFA) CASS DOWN Ⓛ
48 (PEB) UP Ⓗ / DOWN
47 (PEA) LIN·C·CLR
46 (PDB) C. INH
45 (PDA) ×7 Ⓗ
44 (PCB)
43 (PCA) CAP ON / OFF / RST
42 (P93) D. REC Ⓛ
41 (P92) D.A. REC Ⓛ
40 (P91) F. ERACE Ⓛ
39 (P90) FM. REC Ⓛ
36 ×2 Ⓗ
35 (P40)
34 (TIMER SERIAL CLOCK)
33 (P32) SCK (5P)
(LARGE CURRENT RATINGS OUTPUT)
(TRI-STATE OUTPUT)
(ANALOG INPUT)
(HIGH VOLTAGE RATINGS OUTPUT)
(TRI-STATE INPUT)
R6001 47 (1/2W)
X6001 EFOPC3584A5 or VSX0204
(EXCEPT NV-G21B)
(NV-G21B ONLY)
C6020 0.01
R6083 100K
D6028 MA165
R6096 2700
C6029 270
G
F
E
D
C
B
A
1
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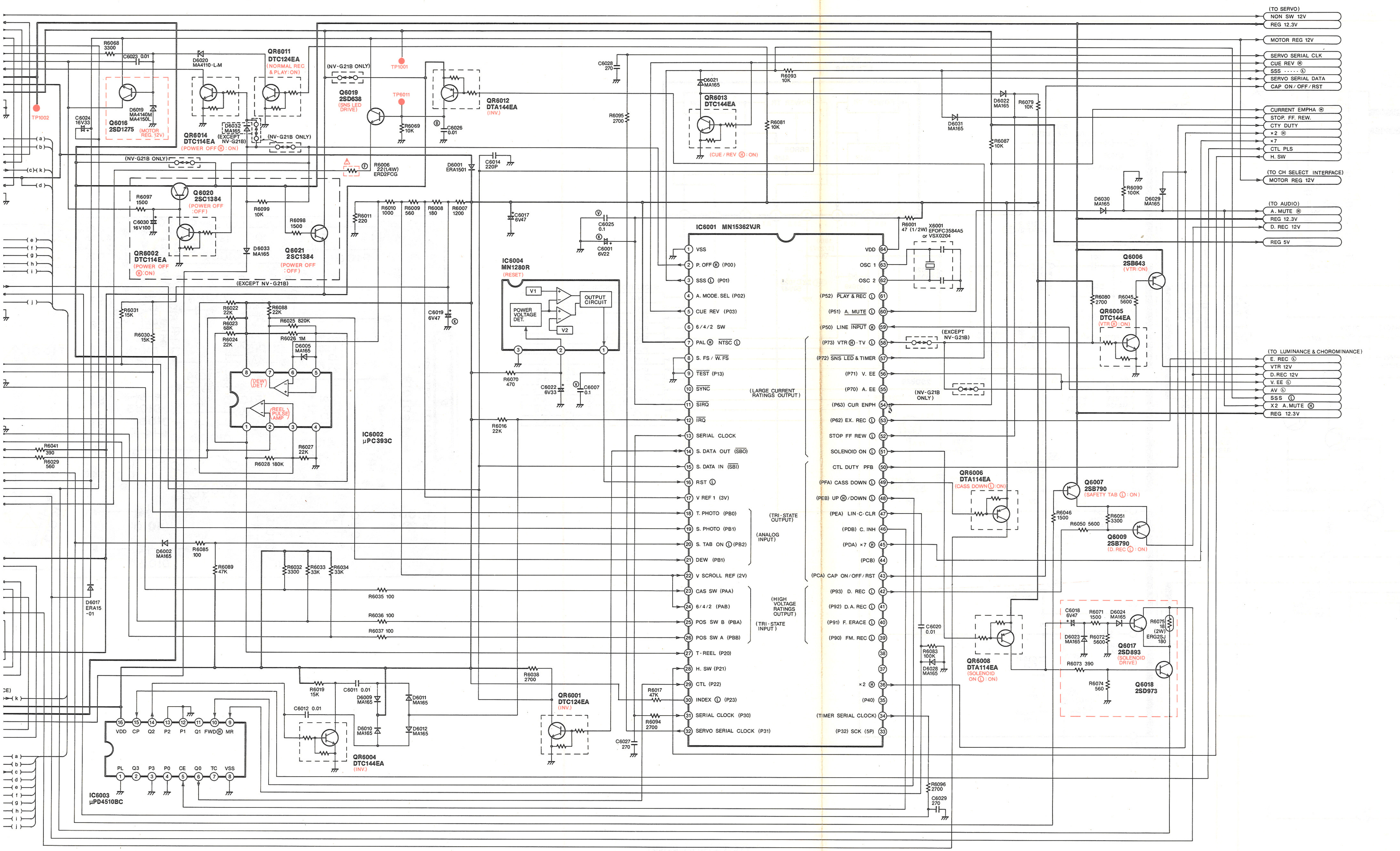
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.


IC6001 MN15362VJR
① VSS
② P. OFF Ⓗ (P00)
③ SSS Ⓛ (P01)
④ A. MODE. SEL (P02)
⑤ CUE REV (P03)
⑥ 6/4/2 SW
⑦ PAL Ⓗ NTSC Ⓛ
⑧ S. FS / W. FS
⑨ TEST (P13)
⑩ SYNC
⑪ SIRQ
⑫ IRQ
⑬ SERIAL CLOCK
⑭ S. DATA OUT (SBO)
⑮ S. DATA IN (SBI)
⑯ RST Ⓛ
⑰ V REF 1 (3V)
⑱ T. PHOTO (PB0)
⑲ S. PHOTO (PB1)
⑳ S. TAB ON Ⓛ (PB2)
㉑ DEW (PB1)
㉒ V SCROLL REF (2V)
㉓ CAS SW (PAA)
㉔ 6/4/2 (PAB)
㉕ POS SW B (PBA)
㉖ POS SW A (PBB)
㉗ T-REEL (P20)
㉘ H. SW (P21)
㉙ CTL (P22)
㉚ INDEX Ⓛ (P23)
㉛ SERIAL CLOCK (P30)
㉜ SERVO SERIAL CLOCK (P31)
VDD (64)
OSC 1 (63)
OSC 2 (62)
(P52) PLAY & REC Ⓛ (61)
(P51) A. MUTE Ⓛ (60)
(P50) LINE INPUT Ⓗ (59)
(P73) VTR Ⓗ · TV Ⓛ (58)
(P72) SNS LED & TIMER (57)
(P71) V. EE (56)
(P70) A. EE (55)
(P63) CUR ENPH (54)
(P62) EX. REC Ⓛ (53)
STOP FF REW Ⓛ (52)
SOLENOID ON Ⓛ (51)
CTL DUTY PFB (50)
(PFA) CASS DOWN Ⓛ (49)
(PEB) UP Ⓗ / DOWN Ⓛ (48)
(PEA) LIN·C·CLR (47)
(PDB) C. INH (46)
(PDA) ×7 Ⓗ (45)
(PCB) (44)
(PCA) CAP ON / OFF / RST (43)
(P93) D. REC Ⓛ (42)
(P92) D.A. REC Ⓛ (41)
(P91) F. ERACE Ⓛ (40)
(P90) FM. REC Ⓛ (39)
(38)
(37)
×2 Ⓗ (36)
(P40) (35)
(TIMER SERIAL CLOCK) (34)
(P32) SCK (5P) (33)
(LARGE CURRENT RATINGS OUTPUT)
(TRI-STATE OUTPUT)
(ANALOG INPUT)
(HIGH VOLTAGE RATINGS OUTPUT)
(TRI-STATE INPUT)
IC6004 MN1280R (RESET)
V1
V2
POWER VOLTAGE DET.
OUTPUT CIRCUIT
IC6002 μPC393C
(DEW) DET
(REEL PULSE) AMP
IC6003 μPD4510BC
VDD CP Q2 P2 P1 Q1 FWD Ⓗ MR
PL Q3 P3 P0 CE Q0 TC VSS
(TO SERVO)
NON SW 12V
REG 12.3V
MOTOR REG 12V
SERVO SERIAL CLK
CUE REV Ⓗ
SSS ····· Ⓛ
SERVO SERIAL DATA
CAP ON / OFF / RST
CURRENT EMPHA Ⓗ
STOP, FF, REW.
CTY DUTY
×2 Ⓗ
×7
CTL PLS
H. SW
(TO CH SELECT INTERFACE)
MOTOR REG 12V
(TO AUDIO)
A. MUTE Ⓗ
REG 12.3V
D. REC 12V
REG 5V
(TO LUMINANCE & CHROMINANCE)
E. REC Ⓛ
VTR 12V
D.REC 12V
V. EE Ⓛ
AV Ⓛ
SSS Ⓛ
X2 A.MUTE Ⓗ
REG 12.3V
Q6016 2SD1275 (MOTOR REG. 12V)
QR6011 DTC124EA (NORMAL REC & PLAY:ON)
QR6014 DTC114EA (POWER OFF Ⓗ:ON)
Q6019 2SD638 (SNS LED DRIVE)
QR6012 DTA144EA (INV.)
QR6013 DTC144EA (CUE/REV Ⓗ:ON)
Q6020 2SC1384 (POWER OFF :OFF)
Q6021 2SC1384 (POWER OFF :OFF)
QR6002 DTC114EA (POWER OFF Ⓗ:ON)
Q6006 2SB643 (VTR:ON)
QR6005 DTC144EA (VTR Ⓗ:ON)
QR6006 DTA114EA (CASS DOWN Ⓛ:ON)
Q6007 2SB790 (SAFETY TAB Ⓛ:ON)
Q6009 2SB790 (D. REC Ⓛ:ON)
QR6008 DTA114EA (SOLENOID ON Ⓛ:ON)
Q6017 2SD893 (SOLENOID DRIVE)
Q6018 2SD973
QR6001 DTC124EA (INV.)
QR6004 DTC144EA (INV.)
X6001 EFOFC3584A5 or VSX0204
TP1001
TP1002
TP6011
(NV-G21B ONLY)
(EXCEPT NV-G21B)
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NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

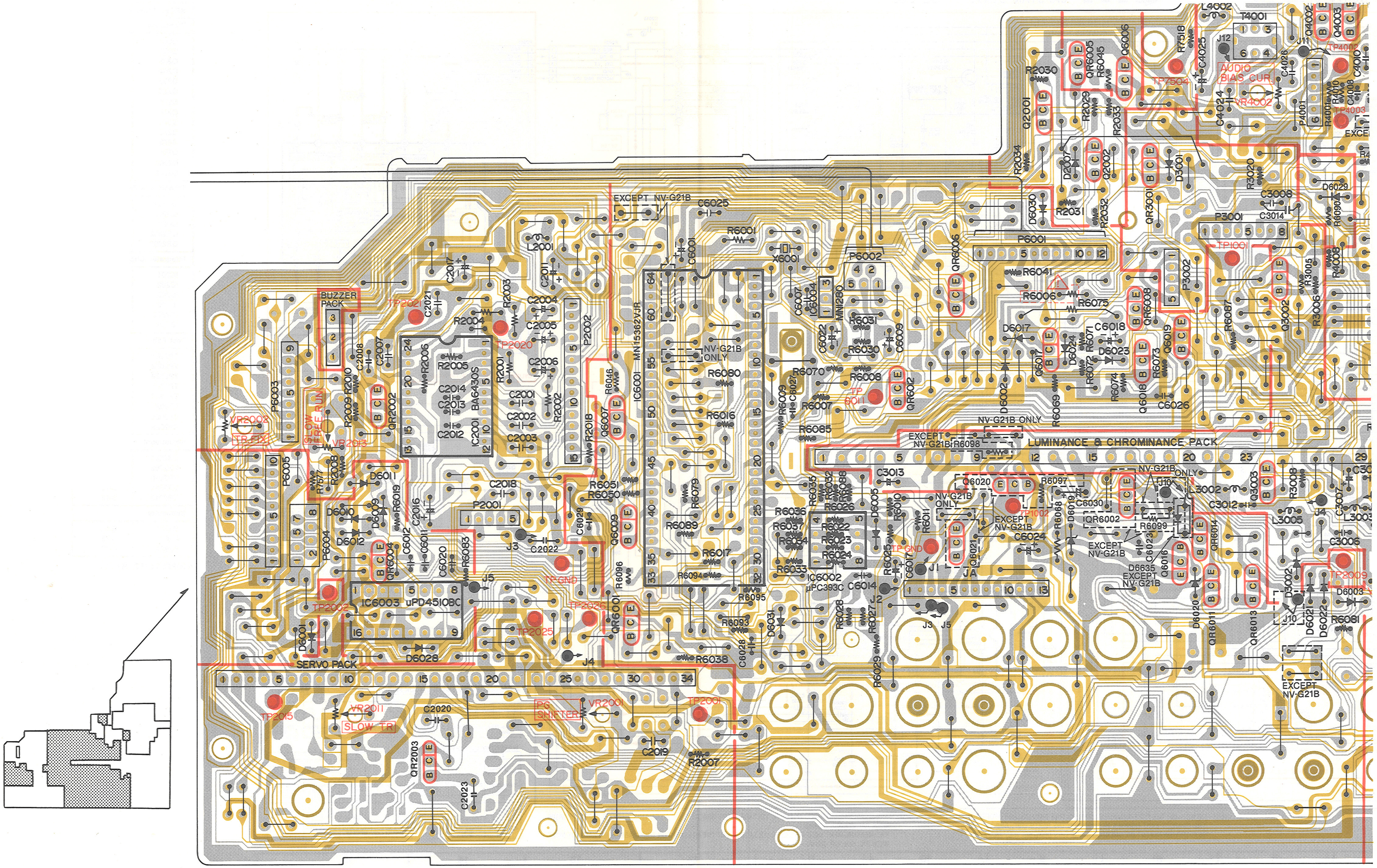
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

SYSTEM CONTROL SCHEMATIC

Transistor	
Q1501	F-1
Q1502	F-2
Q6006	F-14
Q6007	D-14
Q6009	C-14
Q6016	G-6
Q6017	C-14
Q6018	B-14
Q6019	G-8
Q6020	F-7
Q6021	F-7
Transistor & Resistor	
QR6001	B-10
QR6002	F-6
QR6004	B-8
QR6005	E-14
QR6006	D-13
QR6008	B-13
QR6011	G-7
QR6012	G-9
QR6013	G-11
QR6014	G-7
Integrated Circuit	
IC1501	A-3
IC6001	F-11
IC6002	D-8
IC6003	A-6
IC6004	F-9
Test Point	
TP1001	G-8
TP1002	G-5
TP6011	G-8
Connector	
P1503	F-3
P1504	D-3
P1505	D-2
P1506	B-2
P1507	G-1
P1508	G-2
P6001	D-4
P6002	E-4
P6003	C-4
P6004	G-4
P6005	F-4
JA	G-4

ADDRESS INFORMATION

3-8. SYSTEM CONTROL Section In Main C.B.A. (VEP03440A: NV-G21EG) (VEP03440C: NV-G21B) (VEP03440B: NV-G21EO/EV)



BUZZER PACK
TP2021
TP2020
IC2001 BA6430S
IC6001 MN15362VJR
EXCEPT NV-G21B
NV-G21B ONLY
LUMINANCE & CHROMINANCE PACK
SERVO PACK
IC6003 uPD4510BC
IC6002 μPC393C
VR2002 TR FIX
SLOW FREE RUN
VR2013
VR2011 SLOW TR
VR2001 PG SHIFTER
TP2001
TP2015
TP2002
TP2025
TP2026
TP GND
TP 6011
TP1001
TP1002
TP2009
TP4002
TP4003
TP7504
AUDIO BIAS CUR
VR4002
T4001
L4002
P6001
P6002
P3001
P2001
P2002
P6003
P6004
P6005
X6001
J3
J4
J5
J1
J10
J12

SYSTEM CONTROL Section ICs VOLTAGE CHART

REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	0	0	0	0	0.1	5.1	5.0	4.9	4.0	4.9	5.0	4.6	0.2	4.7	5.0	2.8	3.1	3.1	0.5
PLAY	0	0	4.9	0	0	0.2	5.0	5.0	4.9	4.0	4.9	5.0	4.6	0.3	4.7	5.0	2.9	3.1	3.1	0.5
REC	0	0	4.9	0	0	0.2	5.0	5.0	4.9	3.9	4.9	4.9	4.6	0.2	4.7	5.0	2.9	3.1	3.1	0.5
F.F	0	0	4.9	0	0	0.2	5.0	5.0	4.9	4.0	4.9	4.9	4.6	0.2	4.7	5.0	2.8	3.1	3.1	0.5
REW	0	0	4.9	0	0	0.2	5.0	5.0	4.9	4.0	4.9	4.9	4.6	0.3	4.8	5.0	2.8	3.1	3.1	0.5

REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	2.0	5.0	2.0	2.0	5.0	0	0	0	5.0	4.5	4.8	4.7	4.7	0	0	4.9	4.9	0.2	0.2
PLAY	0	2.0	5.0	2.0	5.0	0	2.5	2.5	2.5	5.0	4.6	4.9	4.7	4.7	0	0	4.9	4.9	0.3	0.3
REC	0	2.0	5.1	2.0	5.0	0	0	2.3	2.5	5.0	4.6	4.8	4.7	4.7	0	0	4.9	4.9	0	0
F.F	0	2.0	5.0	2.0	2.0	5.0	2.5	0	2.5	5.0	4.6	4.8	4.8	4.7	0	0	4.9	4.9	0.3	0.3
REW	0	2.0	5.0	2.0	2.0	5.0	3.5	0	2.5	5.0	4.6	4.8	4.8	4.7	0	0	4.9	4.9	0.2	0.2

REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	0.2	12.3	1.9	0	0	4.9	4.9	0	2.4	4.9	5.0	0	0.3	0	0.2	0	4.4	4.8	4.9	0
PLAY	0.3	12.3	4.9	0	0.1	0	4.9	4.9	2.4	4.9	5.0	4.4	0.3	4.8	0	5.1	4.4	4.8	4.9	0
REC	0	0.2	4.9	0	0.1	0	4.9	4.9	2.4	4.9	5.0	4.5	5.3	4.8	0.4	0	4.3	4.8	4.9	0
F.F	0.3	12.3	4.9	0	0.1	0	4.9	0	2.4	4.9	5.0	0	0.3	0	0.2	0	4.3	4.8	4.9	0
REW	0.2	12.3	4.9	0	0.1	0	4.9	0	2.4	4.9	5.0	0	0.3	0	0.2	0	4.5	4.8	4.9	0

REF. NO.	IC6001										IC6002									
MODE	61	62	63	64							1	2	3	4	5	6	7	8		
STOP	4.9	2.0	2.2	4.9							0	4.4	2.4	0	0	0.3	0	5.0		
PLAY	4.9	2.0	2.2	4.9							2.4	2.2	2.4	0	0	0.3	0	5.1		
REC	4.9	2.0	2.2	4.9							2.4	2.2	2.5	0	0	0.3	0	5.1		
F.F	4.9	2.0	2.2	4.9							3.0	2.4	2.5	0	0	0.3	0	5.1		
REW	4.9	2.0	2.2	4.9							2.3	2.4	2.5	0	0	0.3	0	5.0		

REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0	5.1	0	0	4.9	0	5.0	0	0	0	0	0	0	0	0.5	5.1				
PLAY	0	2.5	0	0	0	2.5	5.1	0	0	2.5	0	0	0	2.5	0.4	2.5				
REC	0	0	0	0	0	2.5	5.0	0	0	4.9	5.0	0	0	2.5	3.3	5.1				
F.F	0	1.2	0	0	0	2.5	4.5	0	0	4.9	2.1	0	0	2.5	1.1	5.1				
REW	0	0.9	0	0	0	2.5	4.5	0	0	0	2.1	0	0	2.2	1.2	5.1				

REF. NO.	IC6004																			
MODE	1	2	3																	
STOP	5.0	5.0	0																	
PLAY	5.0	5.0	0																	
REC	5.0	5.0	0																	
F.F	5.0	5.0	0																	
REW	5.0	5.0	0																	

SYSTEM CONTROL Section TRs VOLTAGE CHART

REF. NO.	Q6006			Q6007			Q6009			Q6016			Q6017			Q6018		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	12.2	12.2	11.5	12.2	12.2	11.5	12.2	0.2	12.2	13.2	15.5	14.4	13.2	13.2	3.7	0	13.2	0
PLAY	12.2	12.2	11.5	12.2	12.2	11.5	12.2	0.2	12.2	9.9	15.1	11.2	9.8	9.8	0.9	0	9.8	0
REC	12.1	12.1	11.4	12.1	12.0	11.3	12.0	12.0	11.3	9.9	15.0	11.2	9.9	9.9	0.8	0	9.9	0
F.F	12.2	12.2	11.5	12.2	12.2	11.5	12.2	0.1	12.2	13.3	15.2	14.5	13.3	13.3	3.7	0	13.3	0
REW	12.2	12.2	11.5	12.2	12.2	11.5	12.2	0	12.2	13.2	15.3	14.5	13.2	13.2	3.7	0	13.2	0

REF. NO.	Q6019			Q6020			Q6021											
MODE	E	C	B	E	C	B	E	C	B									
STOP	0.7	13.2	0.6	12.2	12.3	12.9	5.0	5.1	4.4									
PLAY	0.7	9.8	0.6	12.2	12.3	12.9	5.0	5.1	5.8									
REC	0.7	9.9	0.7	12.2	12.3	12.9	5.0	5.1	5.8									
F.F	0.7	13.3	0.7	12.2	12.3	12.9	5.0	5.1	5.8									
REW	0.7	13.2	0.6	12.2	12.3	12.9	5.0	5.1	5.8									

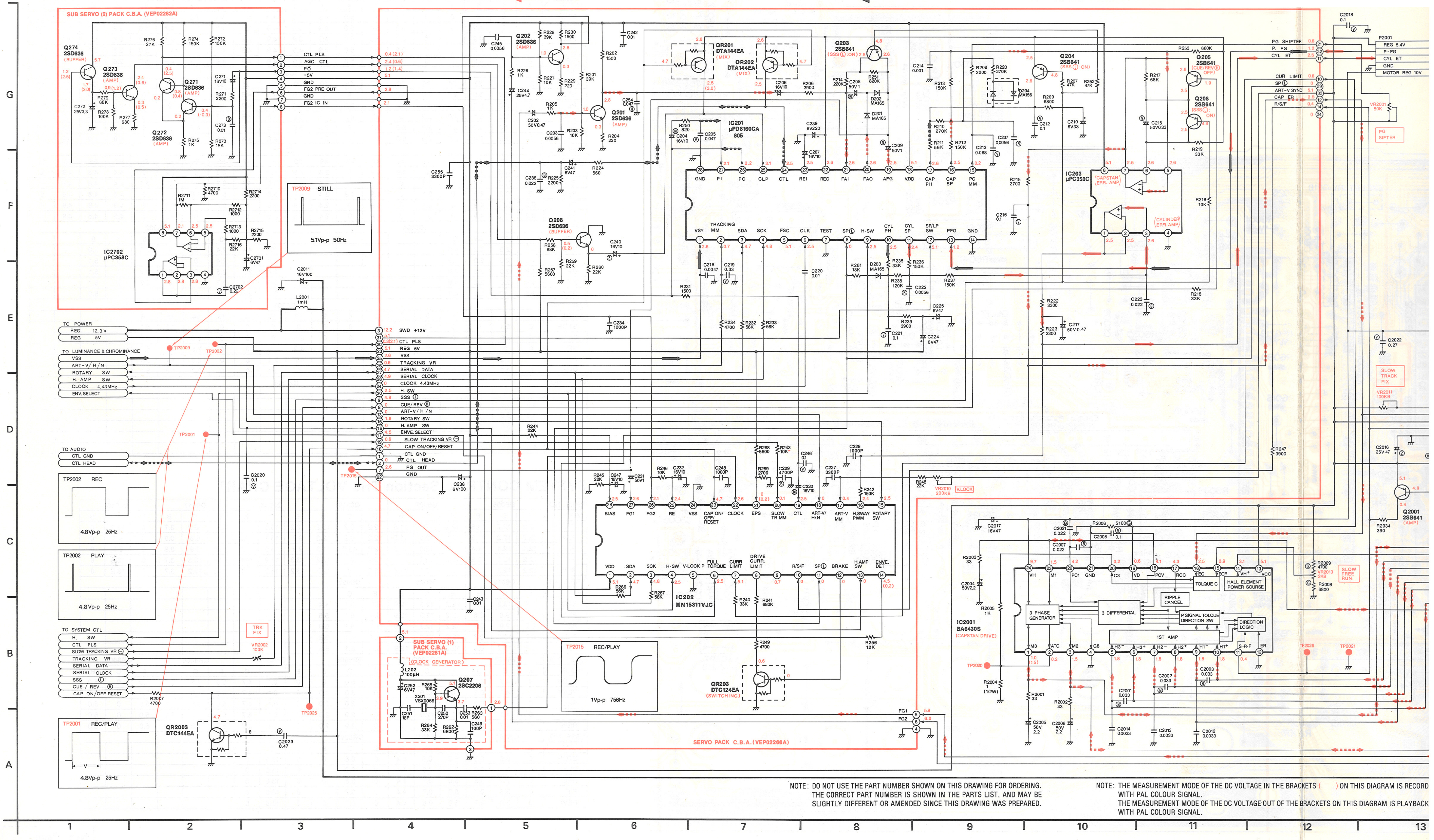
REF. NO.	QR6001			QR6002			QR6004			QR6005			QR6006			QR6008		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	4.7	0.3	0	12.9	0	0	5.0	0	0	0.1	4.7	5.0	4.9	0.1	5.0	0	5.0
PLAY	0	4.7	0.3	0	12.9	0	0	3.0	2.0	0	0.1	4.7	5.0	4.8	0.1	5.0	0	5.0
REC	0	4.7	0.3	0	12.9	0	0	3.0	2.0	0	0.1	4.7	5.0	4.8	0.1	5.0	0	5.0
F.F	0	4.7	0.3	0	12.9	0	0	2.9	2.0	0	0.1	4.7	5.0	4.9	0.1	5.0	0	5.0
REW	0	4.7	0.3	0	12.9	0	0	2.9	2.0	0	0.1	4.7	5.0	4.8	0.1	5.0	0	5.0

REF. NO.	QR6011			QR6012			QR6013			QR6014								
MODE	E	C	B	E	C	B	E	C	B	E	C	B						
STOP	0	3.8	0.6	5.0	0.6	4.4	0	0.6	0	0	13.6	0						
PLAY	0	0.1	3.6	5.0	0.6	4.4	0	3.6	0	0	13.6	0						
REC	0	0.1	3.6	5.0	0.7	4.4	0	3.6	0	0	13.6	0						
F.F	0	3.8	0.7	5.0	0.7	4.4	0	0.7	0	0	13.6	0						
REW	0	3.8	0.7	5.0	0.6	4.4	0	0.7	0	0	13.6	0						

Next Page:
SERVO Section

3-9. SERVO SCHEMATIC DIAGRAM

CYLINDER SERVO SPEED LOOP
CAPSTAN SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
CAPSTAN SERVO PHASE LOOP



SUB SERVO (2) PACK C.B.A. (VEP02282A)
Q274 2SD636 (BUFFER)
Q273 2SD636 (AMP)
Q271 2SD636 (AMP)
Q272 2SD636 (AMP)
IC2702 µPC358C
TP2009 STILL
5.1Vp-p 50Hz
Q202 2SD636 (AMP)
Q201 2SD636 (AMP)
Q208 2SD636 (BUFFER)
QR201 DTA144EA (MIX)
QR202 DTA144EA (MIX)
Q203 2SB641 (SSS Ⓛ:ON)
Q204 2SB641 (SSS Ⓛ:ON)
Q205 2SB641 (CUE/REV Ⓗ:OFF)
Q206 2SB641 (SSS Ⓛ:ON)
IC201 µPD6160CA 605
IC203 µPC358C
(CAPSTAN ERR. AMP)
(CYLINDER ERR. AMP)
PG SIFTER
VR2001 50K
TO POWER
REG 12.3V
REG 5V
TO LUMINANCE & CHROMINANCE
VSS
ART-V/H/N
ROTARY SW
H. AMP SW
CLOCK 4.43MHz
ENV. SELECT
TO AUDIO
CTL GND
CTL HEAD
TP2002 REC
4.8Vp-p 25Hz
TP2002 PLAY
4.8Vp-p 25Hz
TO SYSTEM CTL
H. SW
CTL PLS
SLOW TRACKING VR
TRACKING VR
SERIAL DATA
SERIAL CLOCK
SSS Ⓛ
CUE/REV Ⓗ
CAP ON/OFF RESET
TRK FIX
VR2002 100K
TP2001 REC/PLAY
4.8Vp-p 25Hz
QR2003 DTC144EA
IC202 MN15311VJC
SUB SERVO (1) PACK C.B.A. (VEP02281A)
(CLOCK GENERATOR)
Q207 2SC2206
X201 VSX0066
TP2015 REC/PLAY
1Vp-p 756Hz
QR203 DTC124EA (SWITCHING)
SERVO PACK C.B.A. (VEP02266A)
IC2001 BA6430S (CAPSTAN DRIVE)
3 PHASE GENERATOR
3 DIFFERENTIAL
RIPPLE CANCEL
TOLQUE C
HALL ELEMENT POWER SOURSE
P.SIGNAL TOLQUE DIRECTION SW
DIRECTION LOGIC
1ST AMP
SLOW FREE RUN
SLOW TRACK FIX
VR2011 100KB
Q2001 2SB641 (AMP)
VR2010 200KB V.LOCK
P2001 REG 5.4V P-FG CYL ET GND MOTOR REG 10V
PG SHIFTER
CUR LIMIT
ART-V SYNC
CAP ER
R/S/F
1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

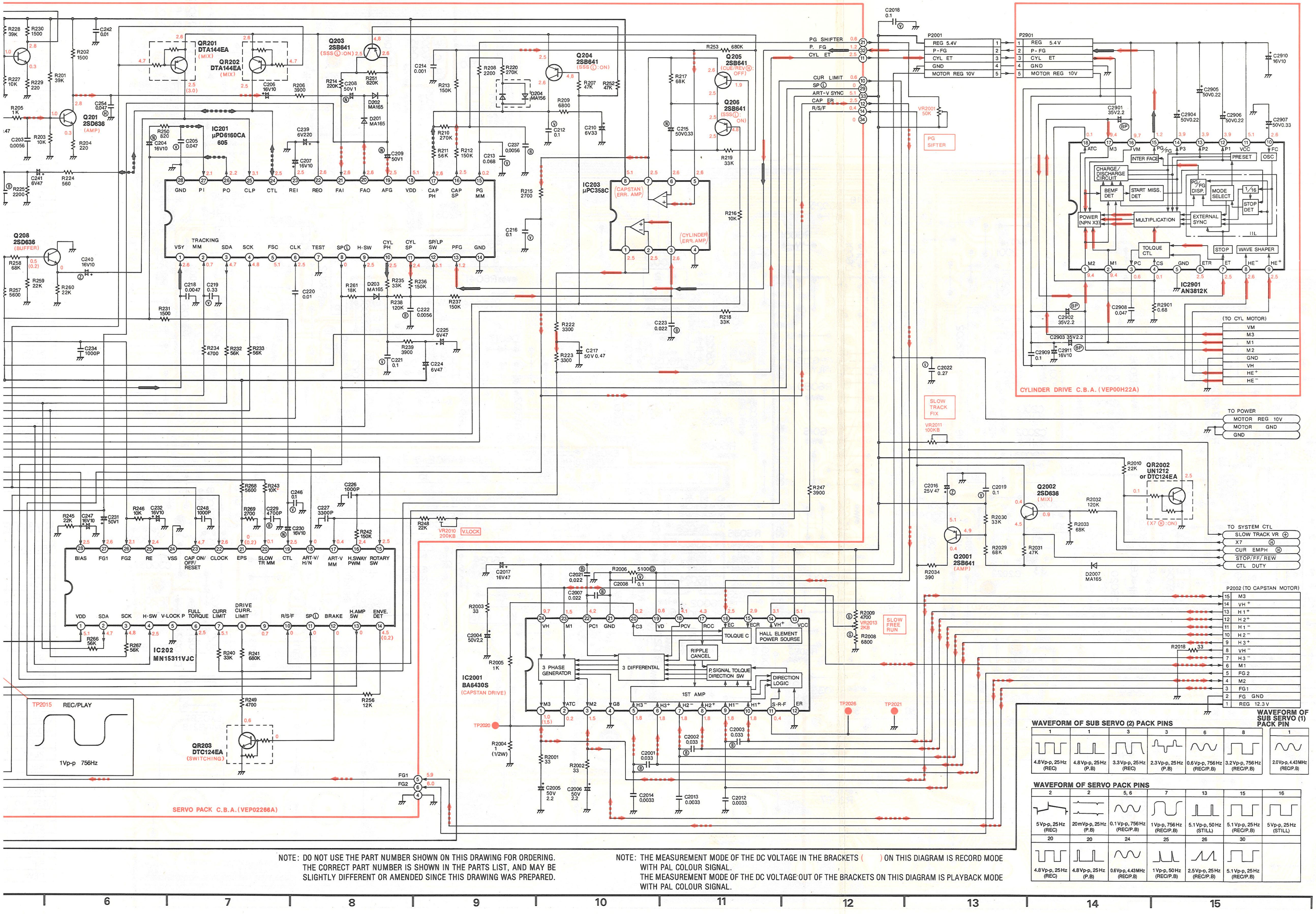
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK WITH PAL COLOUR SIGNAL.

▬ CYLINDER SERVO SPEED LOOP

▪ ▪ ▪ CAPSTAN SERVO SPEED LOOP

◀ CYLINDER SERVO PHASE LOOP

◀ ▪ ▪ ▪ CAPSTAN SERVO PHASE LOOP


SERVO PACK C.B.A. (VEP02266A)
CYLINDER DRIVE C.B.A. (VEP00H22A)
IC201 µPD6160CA 605
IC202 MN15311VJC
IC203 µPC358C
IC2001 BA6430S (CAPSTAN DRIVE)
IC2901 AN3812K
Q201 2SD636 (AMP)
Q203 2SB641
Q204 2SB641
Q205 2SB641
Q206 2SB641
Q208 2SD636 (BUFFER)
QR201 DTA144EA (MIX)
QR202 DTA144EA (MIX)
QR203 DTC124EA (SWITCHING)
Q2001 2SB641 (AMP)
Q2002 2SD636 (MIX)
QR2002 UN1212 or DTC124EA
TP2015 REC/PLAY 1Vp-p 756Hz
P2001
P2002 (TO CAPSTAN MOTOR)
P2901
TO CYL MOTOR
TO POWER
TO SYSTEM CTL
WAVEFORM OF SUB SERVO (2) PACK PINS
WAVEFORM OF SUB SERVO (1) PACK PIN
WAVEFORM OF SERVO PACK PINS
6
7
8
9
10
11
12
13
14
15

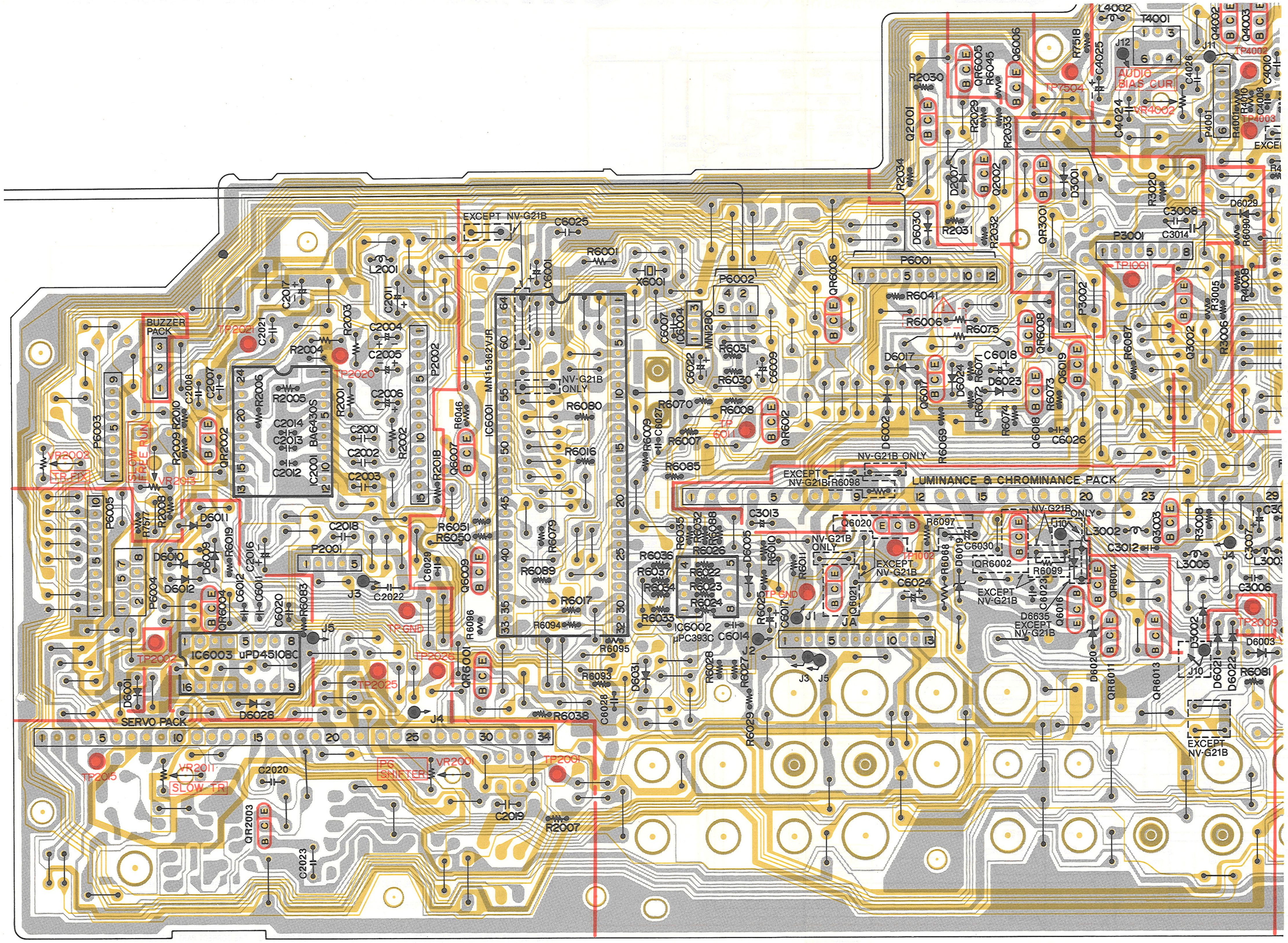
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

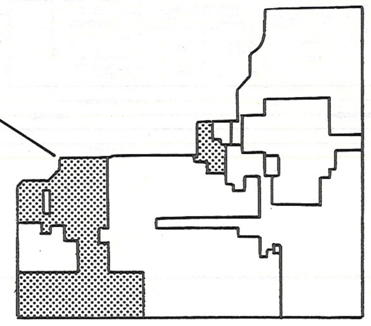
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

SERVO SCHEMATIC	
Transistor	
Q201	G-6
Q202	G-5
Q203	G-8
Q204	G-10
Q205	G-11
Q206	G-11
Q207	B-5
Q208	F-5
Q271	G-2
Q272	G-2
Q273	G-1
Q274	G-1
Q2001	C-13
Q2002	D-14
Transistor & Resistor	
QR201	G-7
QR202	G-7
QR203	B-7
QR2002	D-15
QR2003	A-2
Integrated Circuit	
IC201	G-7
IC202	B-7
IC203	F-10
IC2001	B-9
IC2702	F-1
IC2901	E-15
Test Point	
TP2001	D-2
TP2002	E-2
TP2009	E-2
TP2015	D-3
TP2020	B-9
TP2021	B-12
TP2025	B-9
TP2026	B-12
Adjustment	
VR2001	G-13
VR2002	B-3
VR2010	C-9
VR2011	D-13
VR2013	C-12
Connector	
P2001	G-13
P2002	C-15
P2901	G-13

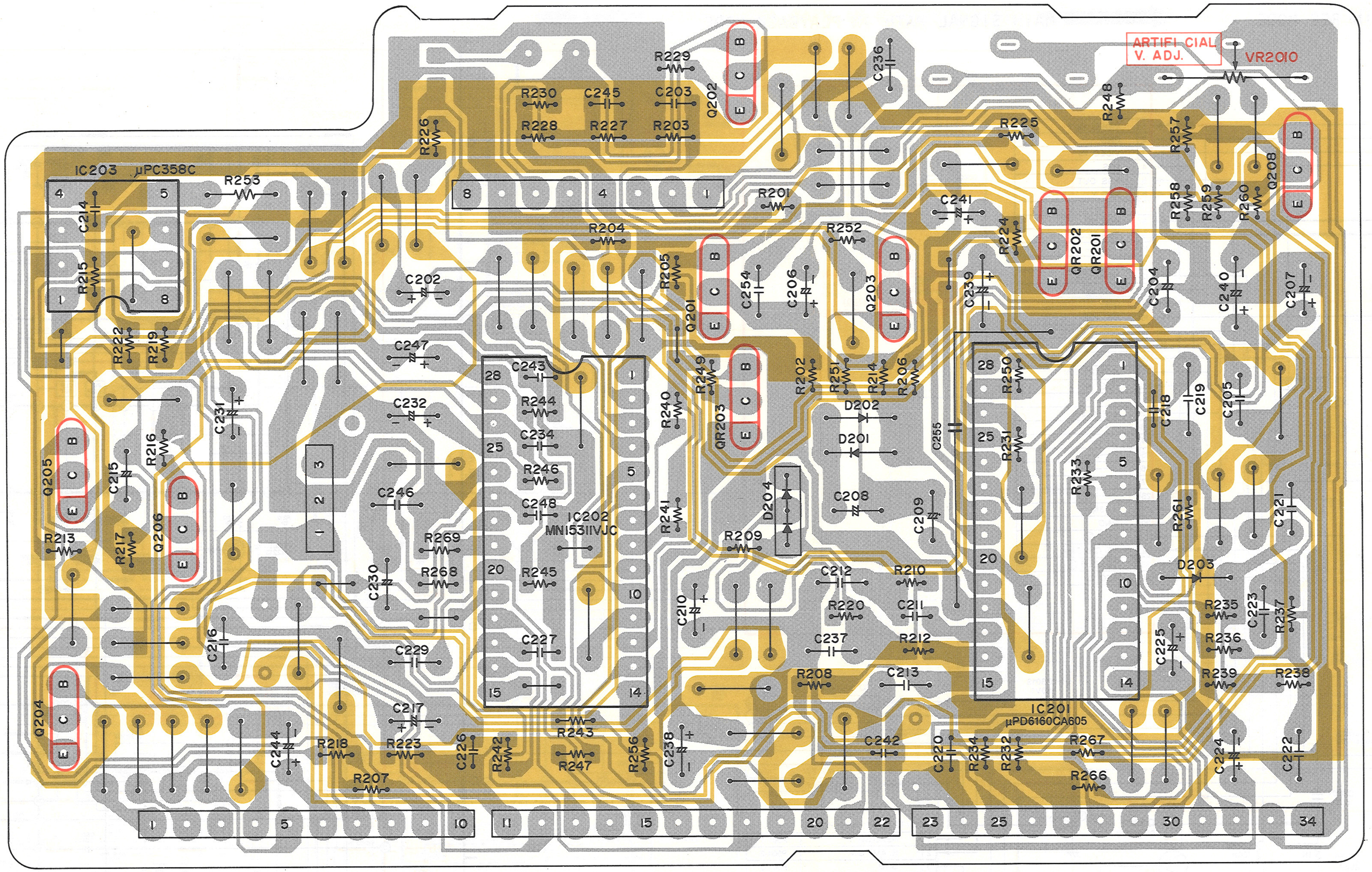
ADDRESS INFORMATION

3-10. SERVO Section In Main C.B.A. (VEP03440A: NV-G21EG) (VEP03440C: NV-G21B) (VEP03440B: NV-G21EO/EV)

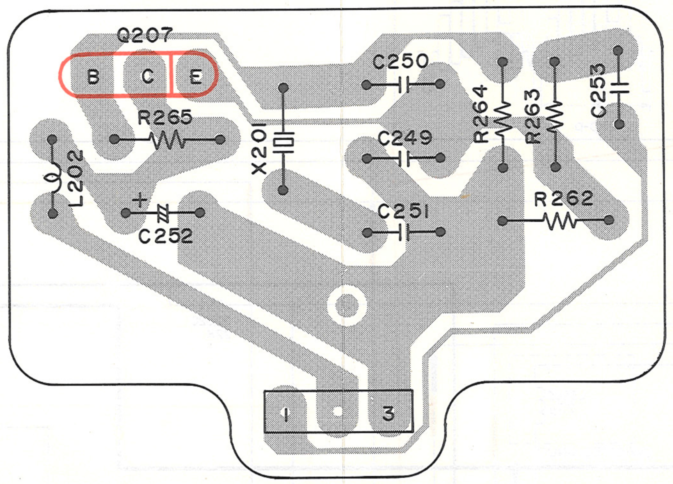

BUZZER PACK
TP2021
TP2020
TP2002
TP2015
TP2025
TP2026
TP2001
TP GND
TP1002
TP1001
TP2009
TP4002
TP4003
TP7504
TP 6011
VR2002
TR FIX
VR2013
SLOW FREE RUN
VR2011
SLOW TR
VR2001
PG SHIFTER
VR4002
AUDIO BIAS CUR
IC2001 BA6430S
IC6001 MN15362VJR
IC6002 μPC393C
IC6003 μPD4510BC
SERVO PACK
LUMINANCE & CHROMINANCE PACK
EXCEPT NV-G21B
NV-G21B ONLY
X6001
P2001
P2002
P6001
P6002
P6003
P6004
P6005
P3001
P3002
P4001
L2001
L4002
T4001
QR2002
QR2003
QR6001
QR6002
QR6004
QR6005
QR6006
QR6008
QR6011
QR6013
QR6014
QR3001
Q2001
Q2002
Q4002
Q4003
Q6007
Q6009
Q6012
Q6016
Q6017
Q6018
Q6019
Q6020
Q6021
Q3002
Q3003
J1
J2
J3
J4
J5
J10
J11
J12
JA
MN1280
D2001
D3001
D6001
D6002
D6003
D6005
D6009
D6010
D6011
D6012
D6017
D6019
D6020
D6021
D6022
D6023
D6024
D6028
D6029
D6030
D6031
D6635
C2001
C2002
C2003
C2004
C2005
C2006
C2007
C2008
C2011
C2012
C2013
C2014
C2016
C2018
C2019
C2020
C2021
C2022
C2023
C3006
C3012
C3013
C3014
C4010
C4024
C4025
C4026
C6001
C6007
C6012
C6014
C6017
C6018
C6020
C6022
C6024
C6025
C6026
C6027
C6028
C6029
C6030
R2001
R2002
R2003
R2004
R2005
R2006
R2007
R2008
R2009
R2010
R2018
R2029
R2030
R2031
R2032
R2033
R2034
R3005
R3006
R3008
R3020
R4009
R6001
R6006
R6007
R6008
R6009
R6010
R6011
R6016
R6017
R6019
R6022
R6023
R6024
R6025
R6026
R6027
R6028
R6029
R6030
R6031
R6033
R6034
R6035
R6036
R6037
R6038
R6041
R6045
R6046
R6050
R6051
R6059
R6070
R6071
R6072
R6073
R6074
R6075
R6079
R6080
R6081
R6083
R6085
R6087
R6089
R6090
R6093
R6094
R6095
R6096
R6097
R6098
R6099
R7518
L3002
L3005
B C E
EXCEPT NV-G21B
NV-G21B ONLY



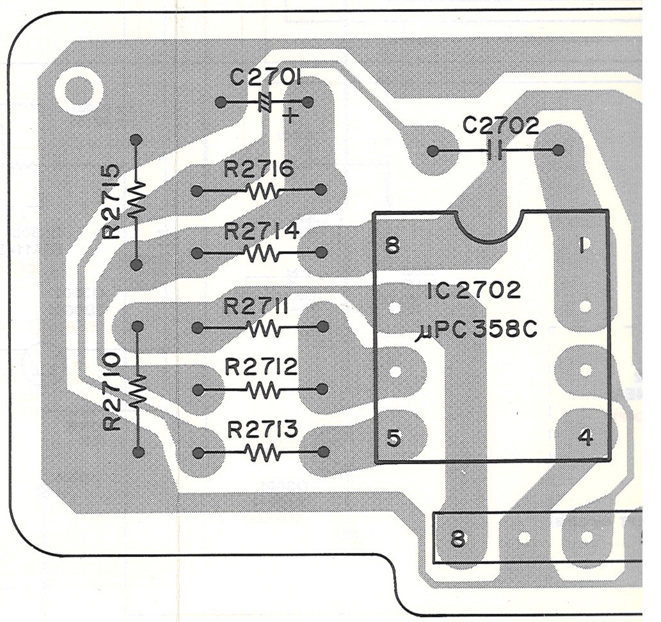
3-11. SERVO PACK C.B.A. (VEP02266A)

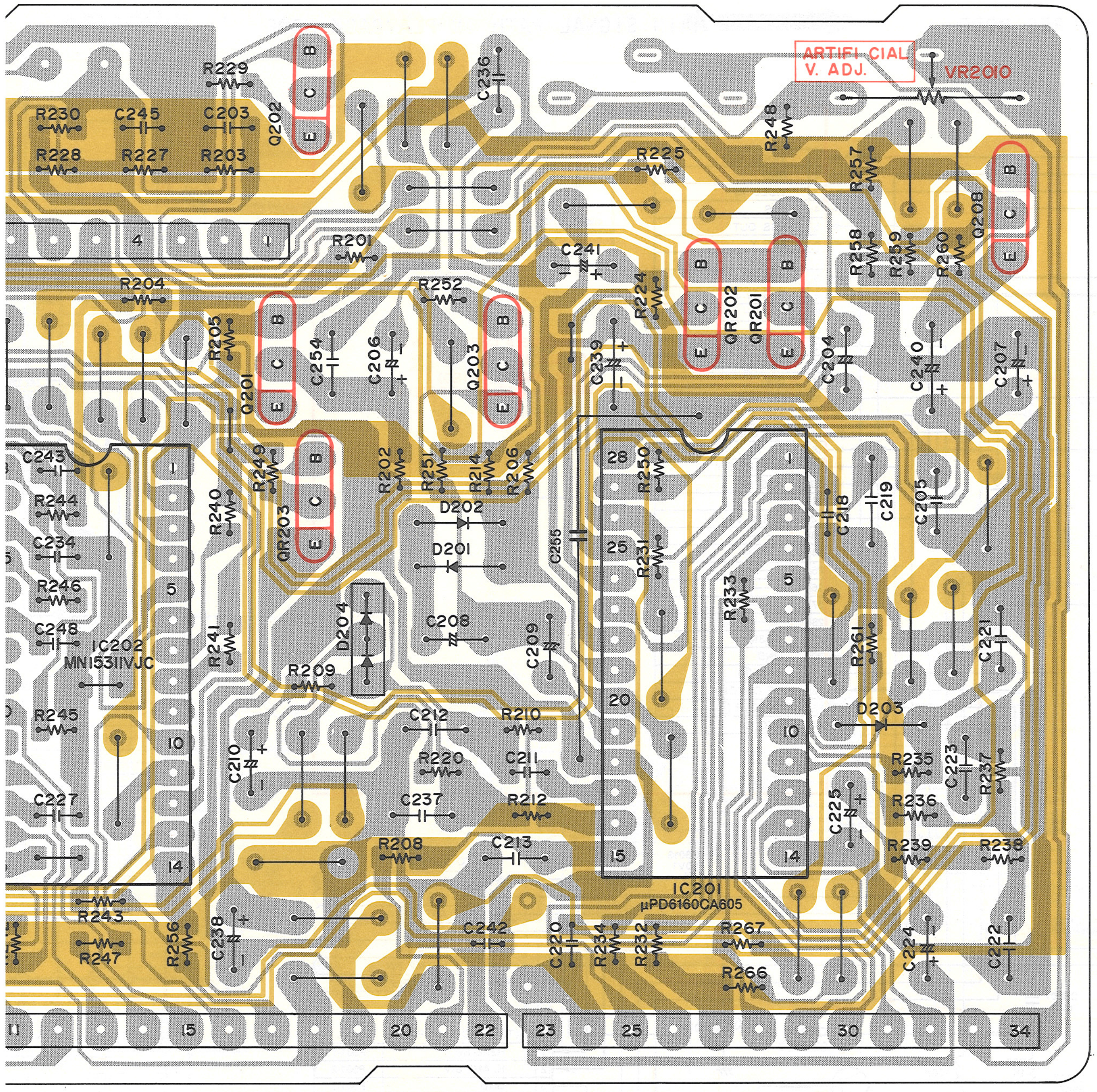

R229
C236
ARTIFI CIAL V. ADJ.
VR2010
R230
C245
C203
Q202
B
C
E
R228
R227
R203
R248
R225
R257
R226
IC203 μPC358C
R253
8
4
1
R201
C241
R224
R258
R259
R260
Q208
R204
R252
QR202
QR201
C214
R215
C202
R205
Q201
C254
C206
Q203
C239
C204
C240
C207
R222
R219
C247
C243
R244
C234
R246
C248
IC202
MN15311VJC
R269
R268
R245
C227
C229
C246
C232
C231
R216
C215
Q205
R213
R217
Q206
C230
C216
C217
R240
R249
QR203
R202
R251
R214
R206
D202
D201
C255
R250
R231
R233
C218
C219
C205
R241
D204
C208
C209
R209
R261
C221
D205
R235
R236
C223
R237
C210
C212
R210
R220
C211
C237
R212
R208
C213
R239
R238
C225
IC201
μPD6160CA605
Q204
R218
R223
C226
R242
R243
R247
R256
C238
C244
R207
C242
C220
R234
R232
R267
R266
C224
C222
28
25
20
15
5
10
14
1
5
10
11
15
20
22
23
25
30
34

3-12. SUB SERVO (1) PACK C.B.A. (VEP02281A)

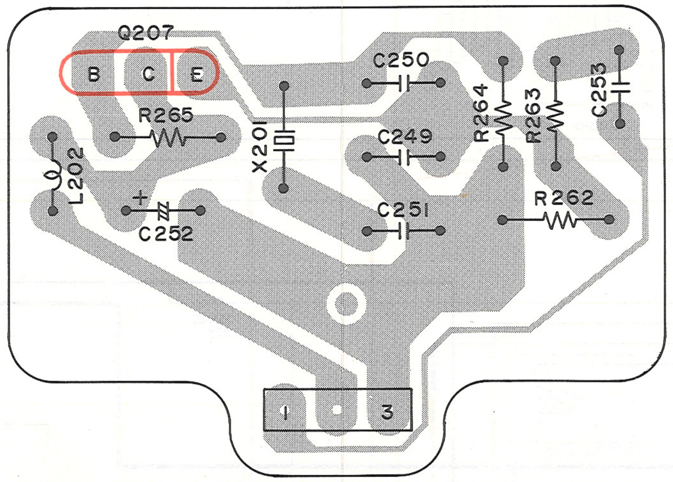

Q207
B
C
E
C250
R265
R264
R263
C253
L202
X201
C249
C252
C251
R262
1
3

3-14. SUB SERVO (2) PACK C.B.A.

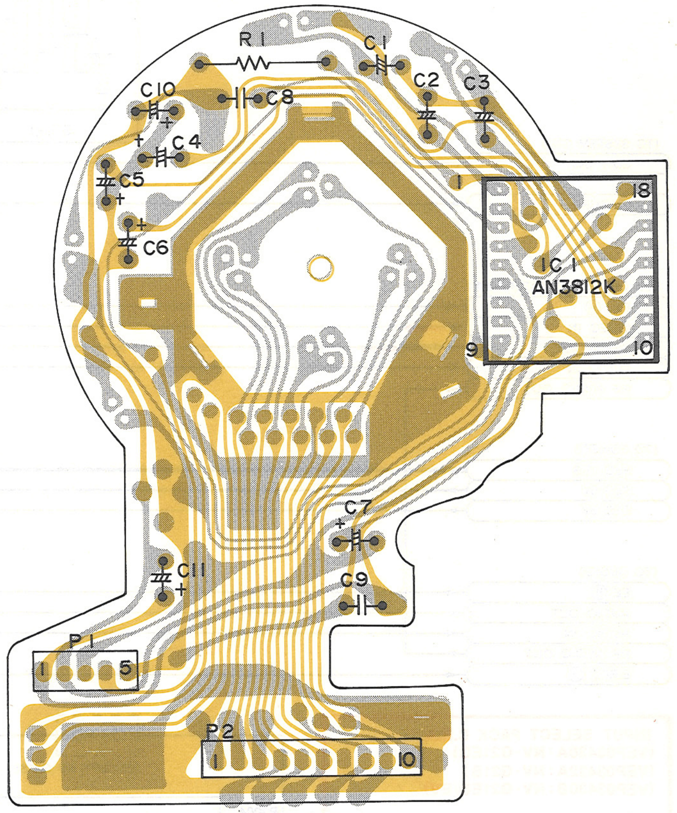

C2701
C2702
R2715
R2716
R2714
IC2702
μPC358C
R2711
R2712
R2710
R2713
8
1
5
4
8


ARTIFI CIAL V. ADJ.
VR2010
R229
R230
C245
C203
Q202
R228
R227
R203
C236
R225
R248
R257
Q208
R201
R204
R252
C241
R224
QR202
QR201
R258
R259
R260
R205
Q201
C254
C206
Q203
C239
C204
C240
C207
C243
R244
C234
R246
C248
IC202
MN1531IVJC
R245
C227
R243
R247
R240
R249
QR203
R202
R251
R214
R206
D202
D201
C255
R250
R231
C218
C219
C205
D204
C208
C209
R233
R261
C221
R241
R209
C212
R210
R220
C211
C237
R212
R208
C213
D203
R235
R236
C223
R237
C225
R239
R238
C210
R256
C238
C242
C220
R234
R232
IC201
μPD6160CA605
R267
R266
C224
C222
B C E
4
1
5
10
14
28
25
20
15
10
5
1
11
15
20
22
23
25
30
34

3-12. SUB SERVO (1) PACK C.B.A. (VEP02281A)

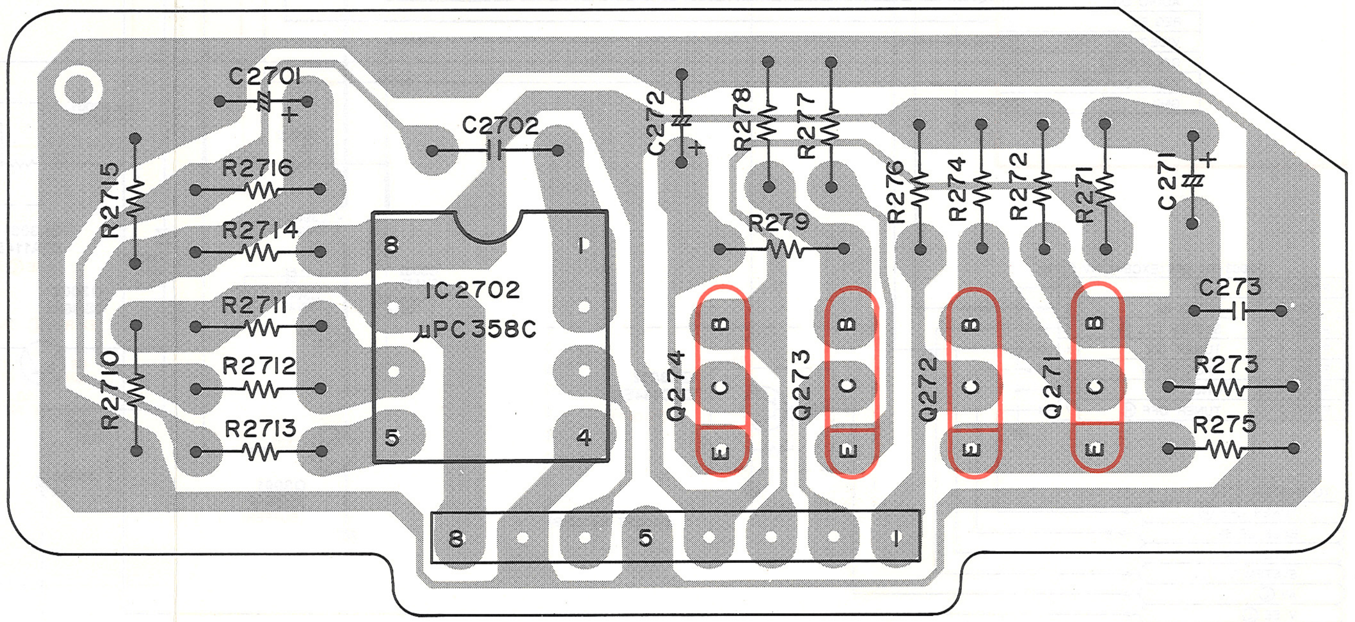

Q207
B C E
L202
R265
X201
C250
C249
R264
R263
C253
C252
C251
R262
1
3

3-13. CYLINDER DRIVE C.B.A. (VEP00H22A)


R1
C1
C2
C3
C10
C8
C4
C5
C6
IC1
AN3812K
18
9
10
C7
C11
C9
P1
1
5
P2
10

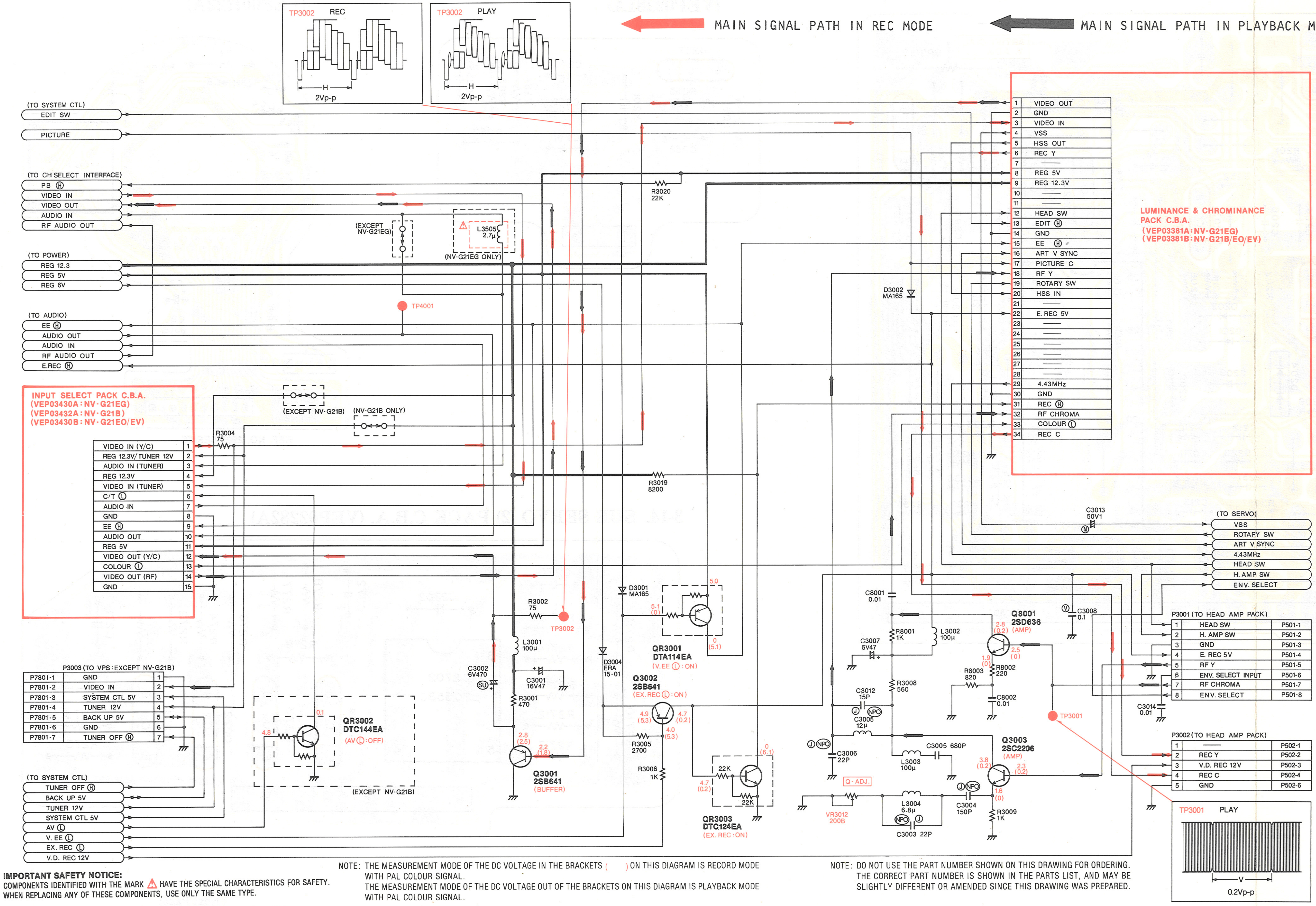
REF. NO. 2900 SERIES

3-14. SUB SERVO (2) PACK C.B.A. (VEP02282A)


C2701
C2702
C272
R278
R277
R2715
R2716
R2714
R279
R276
R274
R272
R271
C271
IC2702
μPC358C
8
1
5
4
R2711
R2712
R2713
R2710
Q274
Q273
Q272
Q271
B C E
C273
R273
R275
8
5
1

Next Page:
LUMINANCE & CHROMINANCE Section

3-15. LUMINANCE & CHROMINANCE SCHEMATIC DIAGRAM

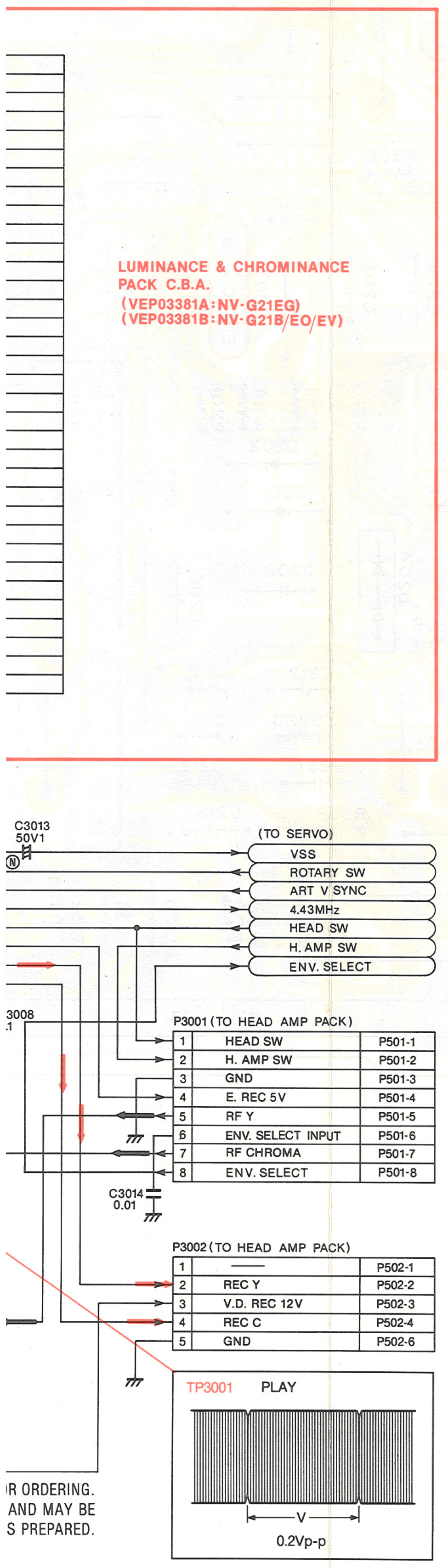

TP3002 REC
2Vp-p
H
TP3002 PLAY
2Vp-p
H
MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
(TO SYSTEM CTL)
EDIT SW
PICTURE
(TO CH SELECT INTERFACE)
PB Ⓗ
VIDEO IN
VIDEO OUT
AUDIO IN
RF AUDIO OUT
(TO POWER)
REG 12.3
REG 5V
REG 6V
(TO AUDIO)
EE Ⓗ
AUDIO OUT
AUDIO IN
RF AUDIO OUT
E.REC Ⓗ
(EXCEPT NV-G21EG)
L3505 2.7μ
(NV-G21EG ONLY)
TP4001
R3020 22K
R3019 8200
D3002 MA165
(EXCEPT NV-G21B)
(NV-G21B ONLY)
INPUT SELECT PACK C.B.A.
(VEP03430A : NV-G21EG)
(VEP03432A : NV-G21B)
(VEP03430B : NV-G21EO/EV)
R3004 75
1 VIDEO IN (Y/C)
2 REG 12.3V/ TUNER 12V
3 AUDIO IN (TUNER)
4 REG 12.3V
5 VIDEO IN (TUNER)
6 C/T Ⓛ
7 AUDIO IN
8 GND
9 EE Ⓗ
10 AUDIO OUT
11 REG 5V
12 VIDEO OUT (Y/C)
13 COLOUR Ⓛ
14 VIDEO OUT (RF)
15 GND
LUMINANCE & CHROMINANCE PACK C.B.A.
(VEP03381A : NV-G21EG)
(VEP03381B : NV-G21B/EO/EV)
1 VIDEO OUT
2 GND
3 VIDEO IN
4 VSS
5 HSS OUT
6 REC Y
7 ——
8 REG 5V
9 REG 12.3V
10 ——
11 ——
12 HEAD SW
13 EDIT Ⓗ
14 GND
15 EE Ⓗ
16 ART V SYNC
17 PICTURE C
18 RF Y
19 ROTARY SW
20 HSS IN
21 ——
22 E. REC 5V
23 ——
24 ——
25 ——
26 ——
27 ——
28 ——
29 4.43MHz
30 GND
31 REC Ⓗ
32 RF CHROMA
33 COLOUR Ⓛ
34 REC C
C3013 50V1
(TO SERVO)
VSS
ROTARY SW
ART V SYNC
4.43MHz
HEAD SW
H. AMP SW
ENV. SELECT
D3001 MA165
5.0
5.1 (0)
0 (5.1)
QR3001 DTA114EA
(V.EE Ⓛ : ON)
D3004 ERA 15-01
Q3002 2SB641
(EX. REC Ⓛ : ON)
4.9 (5.3)
4.7 (0.2)
4.0 (5.3)
R3005 2700
R3006 1K
22K
22K
0 (6.1)
4.7 (0.2)
QR3003 DTC124EA
(EX. REC : ON)
R3002 75
TP3002
L3001 100μ
C3002 6V470
C3001 16V47
R3001 470
2.8 (2.5)
2.2 (1.8)
Q3001 2SB641
(BUFFER)
P3003 (TO VPS : EXCEPT NV-G21B)
P7801-1 GND 1
P7801-2 VIDEO IN 2
P7801-3 SYSTEM CTL 5V 3
P7801-4 TUNER 12V 4
P7801-5 BACK UP 5V 5
P7801-6 GND 6
P7801-7 TUNER OFF Ⓗ 7
4.8
0.1
QR3002 DTC144EA
(AV Ⓛ : OFF)
(EXCEPT NV-G21B)
(TO SYSTEM CTL)
TUNER OFF Ⓗ
BACK UP 5V
TUNER 12V
SYSTEM CTL 5V
AV Ⓛ
V. EE Ⓛ
EX. REC Ⓛ
V.D. REC 12V
C8001 0.01
R8001 1K
L3002 100μ
C3007 6V47
Q8001 2SD636
(AMP)
2.8 (0.2)
2.5 (0)
1.9 (0)
R8003 820
R8002 220
C8002 0.01
R3008 560
C3012 15P
C3005 12μ
C3006 22P
Q-ADJ.
VR3012 200B
C3005 680P
L3003 100μ
L3004 6.8μ
C3003 22P
C3004 150P
Q3003 2SC2206
(AMP)
3.8 (0.2)
2.3 (0.2)
1.6 (0)
R3009 1K
TP3001
C3008 0.1
C3014 0.01
P3001 (TO HEAD AMP PACK)
1 HEAD SW P501-1
2 H. AMP SW P501-2
3 GND P501-3
4 E. REC 5V P501-4
5 RF Y P501-5
6 ENV. SELECT INPUT P501-6
7 RF CHROMA P501-7
8 ENV. SELECT P501-8
P3002 (TO HEAD AMP PACK)
1 —— P502-1
2 REC Y P502-2
3 V.D. REC 12V P502-3
4 REC C P502-4
5 GND P502-6
TP3001 PLAY
0.2Vp-p
V

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

MAIN SIGNAL PATH IN PLAYBACK MODE


LUMINANCE & CHROMINANCE
PACK C.B.A.
(VEP03381A:NV-G21EG)
(VEP03381B:NV-G21B/EO/EV)
C3013
50V1
(TO SERVO)
VSS
ROTARY SW
ART V SYNC
4.43MHz
HEAD SW
H. AMP SW
ENV. SELECT
3008
.1
C3014
0.01
TP3001
PLAY
V
0.2Vp-p

P3001 (TO HEAD AMP PACK)

1	HEAD SW	P501-1
2	H. AMP SW	P501-2
3	GND	P501-3
4	E. REC 5V	P501-4
5	RF Y	P501-5
6	ENV. SELECT INPUT	P501-6
7	RF CHROMA	P501-7
8	ENV. SELECT	P501-8

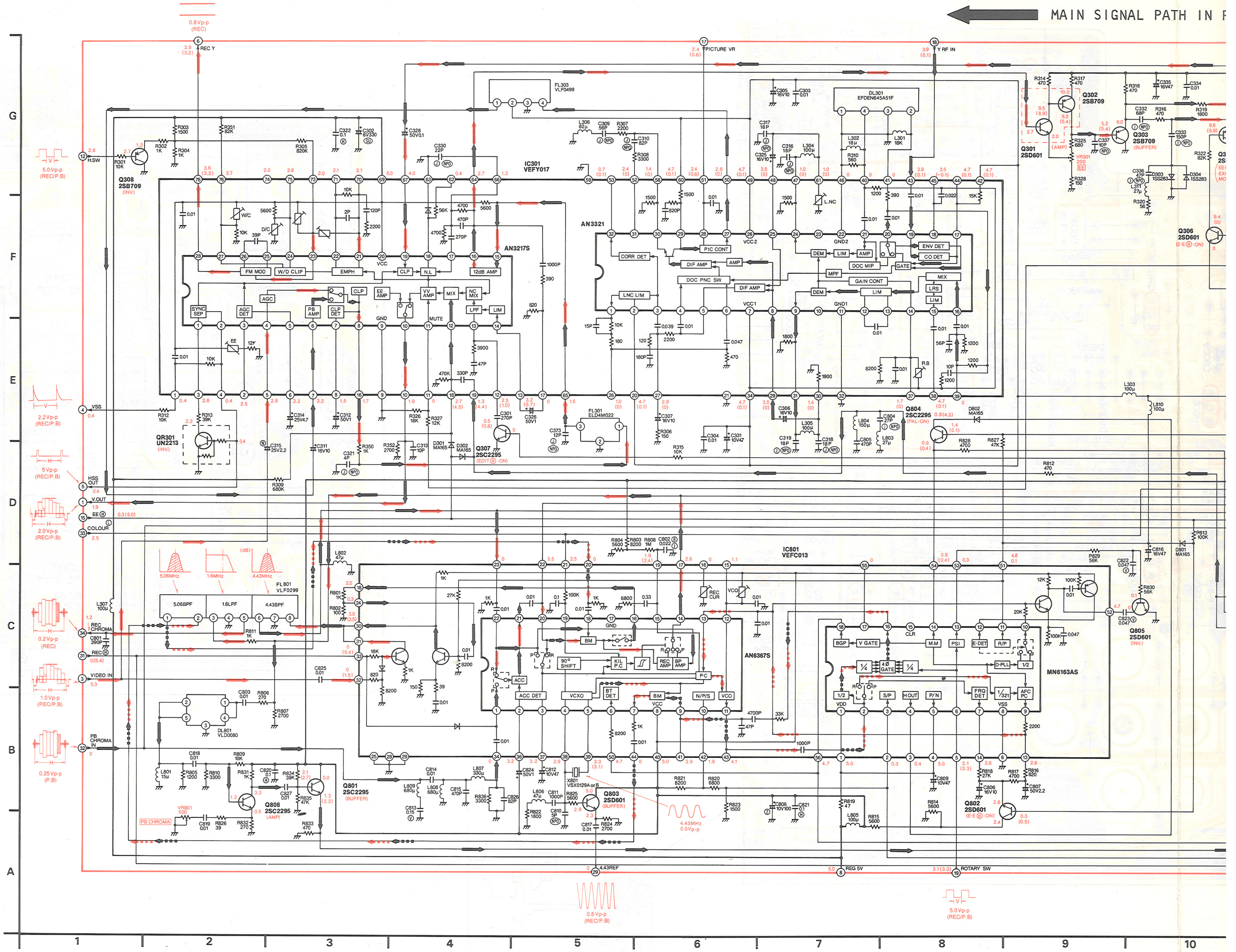
P3002 (TO HEAD AMP PACK)

1	——	P502-1
2	REC Y	P502-2
3	V.D. REC 12V	P502-3
4	REC C	P502-4
5	GND	P502-6

R ORDERING.
AND MAY BE
S PREPARED.

3-16. LUMINANCE & CHROMINANCE PACK SCHEMATIC DIAGRAM

MAIN SIGNAL PATH IN R
MAIN SIGNAL PATH IN P


G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
0.8Vp-p (REC)
REC Y
PICTURE VR
Y RF IN
H.SW
5.0Vp-p (REC/P.B)
Q308 2SB709 (INV.)
FL303 VLF0499
IC301 VEFY017
AN3217S
AN3321
FM MOD
W/D CLIP
EMPH
CLP
N.L
12dB AMP
SYNC SEP
AGC DET
AGC
PB AMP
CLP DET
EE AMP
VV AMP
MIX
NC MIX
LPF
LIM
MUTE
VCC
GND
CORR DET
PIC CONT
DIF AMP
AMP
DOC PNC SW
LNC LIM
ENV DET
CO DET
ENV
LIM
DOC MIP
GATE
MPF
GAIN CONT
MIX
LRS
DEM
VCC1
VCC2
GND1
GND2
DL301 EFDEN645A51F
Q301 2SD601
Q302 2SB709
Q303 2SB709 (BUFFER)
Q306 2SD601
QR301 UN2213 (INV.)
Q307 2SC2295 (EDIT Ⓗ ON)
Q804 2SC2295 (PAL Ⓗ ON)
FL301 ELD4M022
VSS
2.2Vp-p (REC/P.B)
5Vp-p (REC/P.B)
HSS OUT
V.OUT
EE Ⓗ
COLOUR
2.0Vp-p (REC/P.B)
0.2Vp-p (REC)
REC CHROMA
REC Ⓗ
VIDEO IN
1.0Vp-p (REC/P.B)
PB CHROMA IN
0.25Vp-p (P.B)
5.06MHz
1.6MHz
4.43MHz
(dB)
5.06BPF
1.6LPF
4.43BPF
FL801 VLF0299
DL801 VLD0080
IC801 VEFC013
AN6367S
MN6163AS
BM
ACC
ACC DET
VCXO
BT DET
KIL P.C
90° SHIFT
REC AMP
BP AMP
PC
N/P/S
VCO
REC CUR
VDD
BGP
V GATE
CLR
M.M
PSI
E-DET
R/P
D-PLL
1/2
1/4
4Φ GATE
1/2
S/P
HOUT
P/N
FRQ DET
1/321
AFC PC
VSS
Q801 2SC2295 (BUFFER)
Q803 2SD601 (BUFFER)
Q805 2SD601 (INV.)
Q806 2SC2295 (AMP)
Q802 2SD601 (E-E Ⓗ ON)
X801 VSX0129A or B
4.43MHz 0.5Vp-p
0.5Vp-p (REC/P.B)
4.43REF
REG 5V
ROTARY SW
5.0Vp-p (REC/P.B)
PB CHROMA

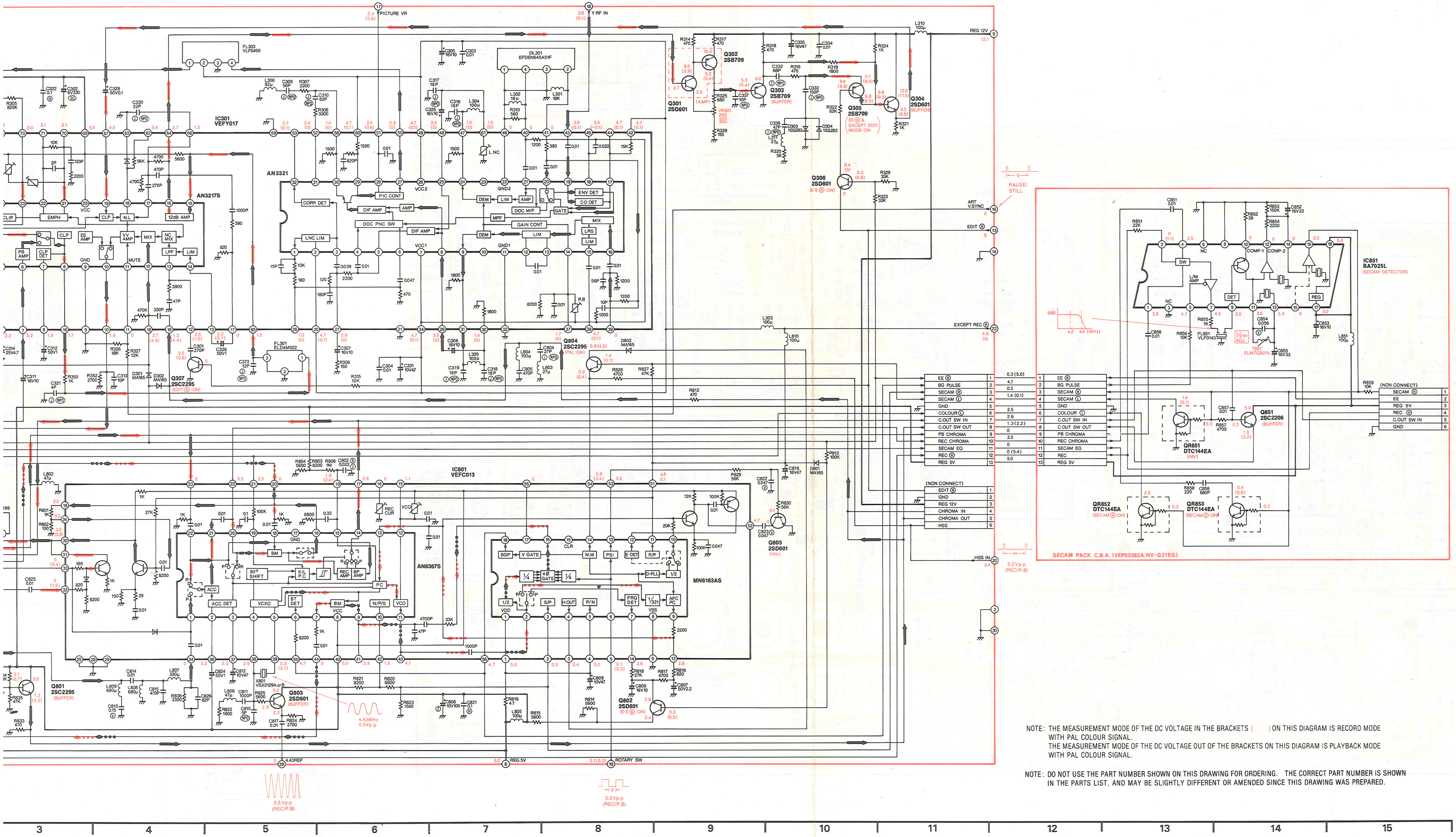
MINANCE PACK SCHEMATIC DIAGRAM

MAIN SIGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBACK MODE

5.06MHz PHASE ROTATIONAL SIGNAL IN REC MODE

5.06MHz PHASE ROTATIONAL SIGNAL IN PLAYBACK MODE



PICTURE VR
Y RF IN
REG 12V
FL303 VLF0499
DL301 EFDEN645A51F
IC301 VEFY017
AN3321
AN3217S
Q301 2SD601
Q302 2SB709
Q303 2SB709 (BUFFER)
Q304 2SD601 (BUFFER)
Q305 2SB709 (EE Ⓡ & EXCEPT EDIT MODE: ON)
Q306 2SD601 (E-E Ⓡ ON)
Q307 2SC2295 (EDIT Ⓡ ON)
Q804 2SC2295 (PAL:ON)
FL301 ELD4M022
PAUSE/STILL
ART V.SYNC
EDIT Ⓡ
EXCEPT REC Ⓡ
IC851 BA7025L (SECAM DETECTOR)
Q851 2SC2206 (BUFFER)
QR851 DTC144EA (INV.)
QR852 DTC144EA (SECAM Ⓡ ON)
QR853 DTC144EA (SECAM Ⓡ ON)
SECAM PACK C.B.A. (VEP03382A:NV-G21EG)
EE Ⓡ
BG PULSE
SECAM Ⓡ
SECAM Ⓛ
GND
COLOUR Ⓛ
C.OUT SW IN
C.OUT SW OUT
PB CHROMA
REC CHROMA
SECAM EQ
REC Ⓡ
REG 5V
(NON CONNECT)
EDIT Ⓡ
REG 12V
CHROMA IN
CHROMA OUT
HSS
HSS IN
IC801 VEFC013
AN6367S
MN6163AS
Q801 2SC2295 (BUFFER)
Q802 2SD601 (E-E Ⓡ ON)
Q803 2SD601 (BUFFER)
Q805 2SD601 (INV.)
X801 VSX0129A or B
4.43MHz 0.5Vp-p
4.43REF
0.5Vp-p (REC/P.B)
REG 5V
ROTARY SW
5.0Vp-p (REC/P.B)
3 4 5 6 7 8 9 10 11 12 13 14 15

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

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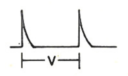
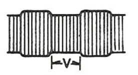
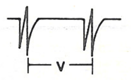
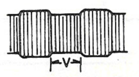
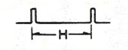
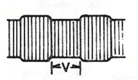
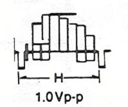
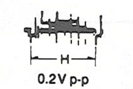
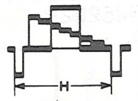
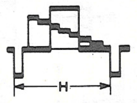
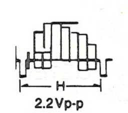
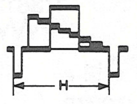
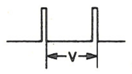
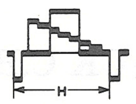
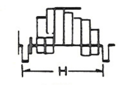
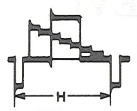
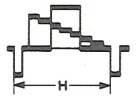
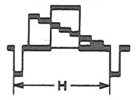
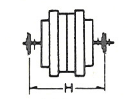
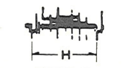
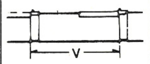
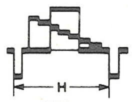
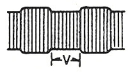
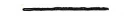
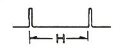
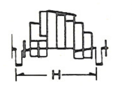
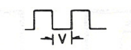
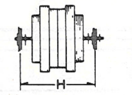
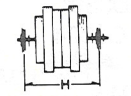
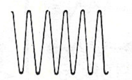
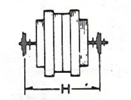
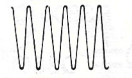
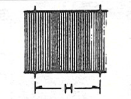
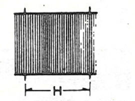
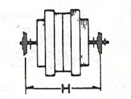
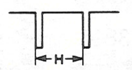
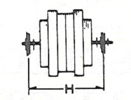
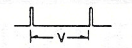
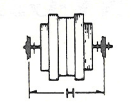
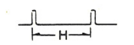
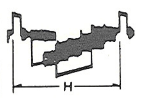
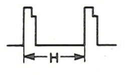
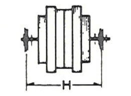
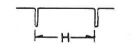
LUMINANCE & CHROMINANCE PACK SCHEMATIC	
Transistor	
Q301	G-9
Q302	G-9
Q303	G-10
Q304	G-11
Q305	G-10
Q306	F-10
Q307	D-4
Q308	G-1
Q801	B-3
Q802	B-8
Q803	B-5
Q804	E-8
Q805	C-10
Q806	B-3
Q851	D-14
Transistor & Resistor	
QR301	E-2
QR851	D-13
QR852	C-13
QR853	C-13
Integrated Circuit	
IC301	G-5
IC801	D-7
IC851	E-15
Adjustment	
VR301	G-9
VR801	A-2
T851	E-14

ADDRESS INFORMATION

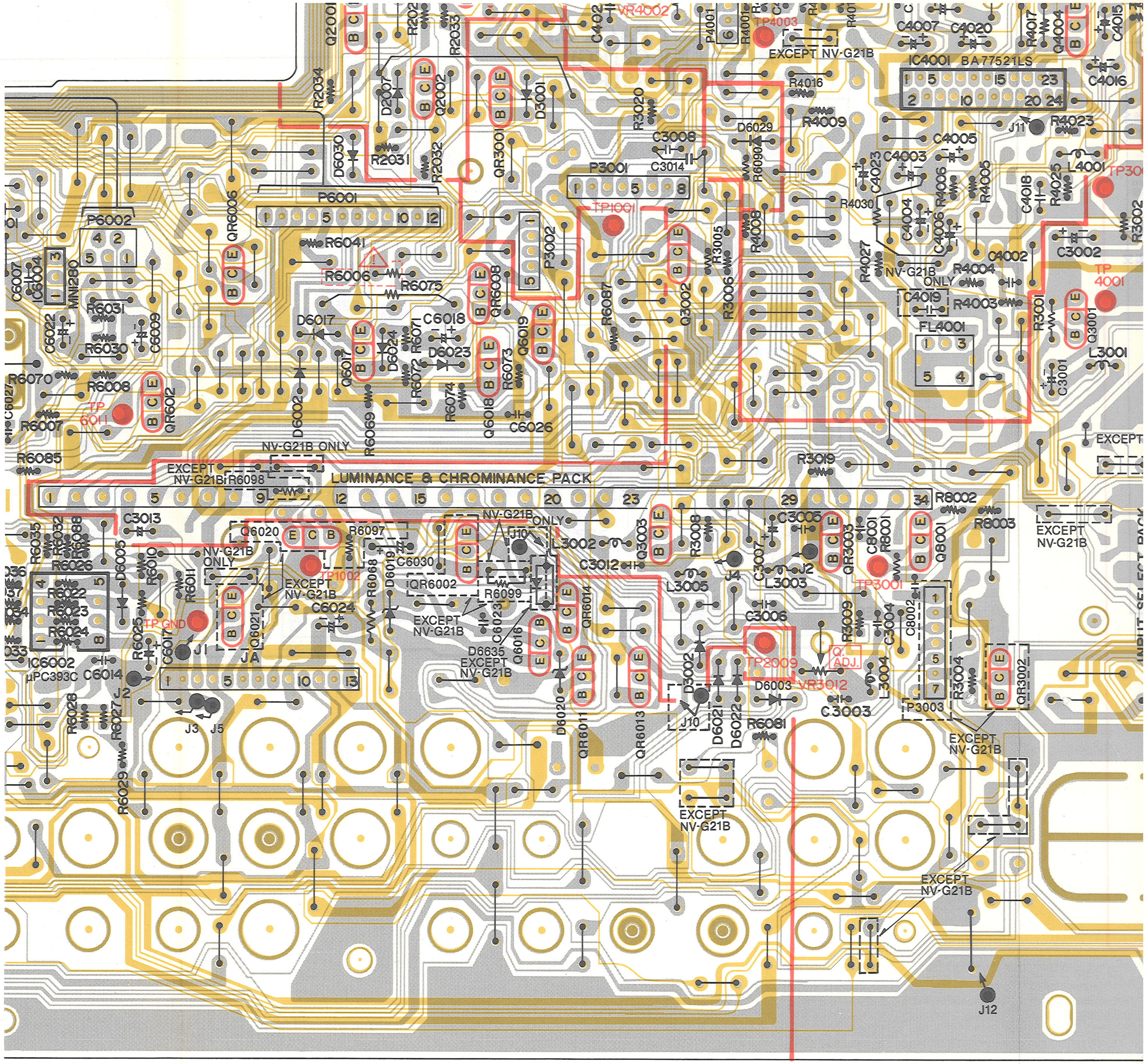
IC301 (VEFY017)

PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
1	 2.5Vp-p (REC/P.B)	40	 0.05V p-p (P.B)
3	 0.8Vp-p (REC/P.B)	41	 0.25V p-p (P.B)
4	 5.0Vp-p (REC/P.B)	43	 0.3V p-p (P.B)
5	 1.0Vp-p (REC/P.B)	48	 0.2V p-p (P.B)
7	 0.3Vp-p (P.B)	50	 0.2V p-p (P.B)
10	 2.2Vp-p (REC/P.B)	64	 1.2V p-p (REC/P.B)
11	 2.7V p-p (PAUSE/ STILL)	65	 0.3V p-p (REC/P.B)
16	 0.6V p-p (REC)	66	 0.6V p-p (REC/P.B)
16	 0.6V p-p (P.B)	67	 1.2V p-p (REC/P.B)
18, 19	 0.3Vp-p (P.B)	70	 0.8V p-p (REC)
31	 0.4V p-p (P.B)	71	 0.3V p-p (REC)
39	 0.1V p-p (P.B)	78	 1.0V p-p (REC)

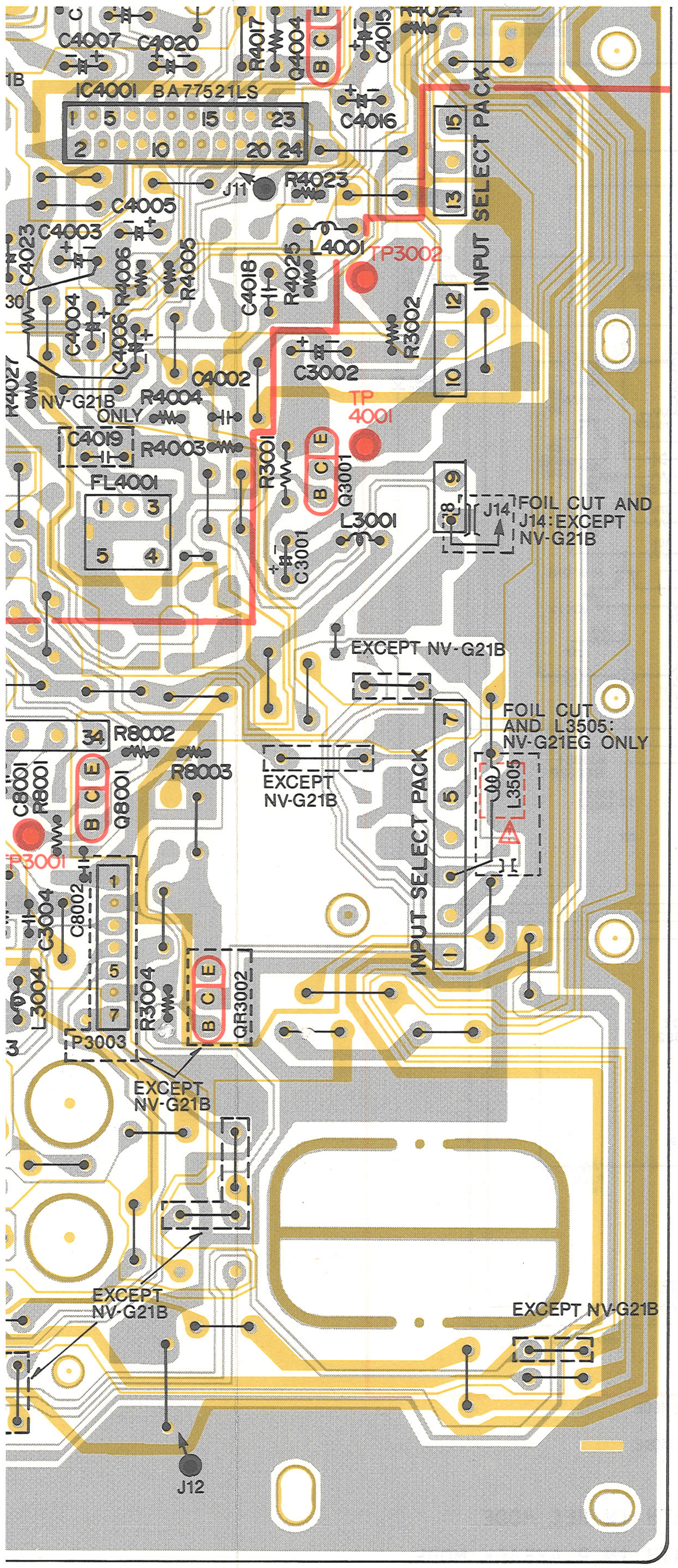
IC801 (VEFC013)

PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
3	 5.0V p-p (REC/P.B)	32	 1.0V p-p (REC/P.B)
5	 5.0V p-p (REC/P.B)	34	 0.3V p-p (P.B)
17	 1.2V p-p (REC) 1.0V p-p (P.B)	38	 0.35V p-p (REC/P.B)
18	 0.6V p-p (REC) 1.5V p-p (P.B)	39	 0.7V p-p (REC/P.B)
20	 80mV p-p (REC) 1.0V p-p (P.B)	44	 0.35V p-p (REC/P.B)
22	 0.6V p-p (REC) 0.5V p-p (P.B)	50	 5V p-p (REC/P.B)
23	 0.15V p-p (REC) 0.6V p-p (P.B)	53	 5.0V p-p (REC/P.B)
24	 150mV p-p (P.B)	54	 5.0V p-p (REC)
30, 31	 1.1V p-p (REC)	54	 4.5V p-p (P.B)
30, 31	 1.0V p-p (P.B)	56	 5.0Vp-p (REC/P.B)

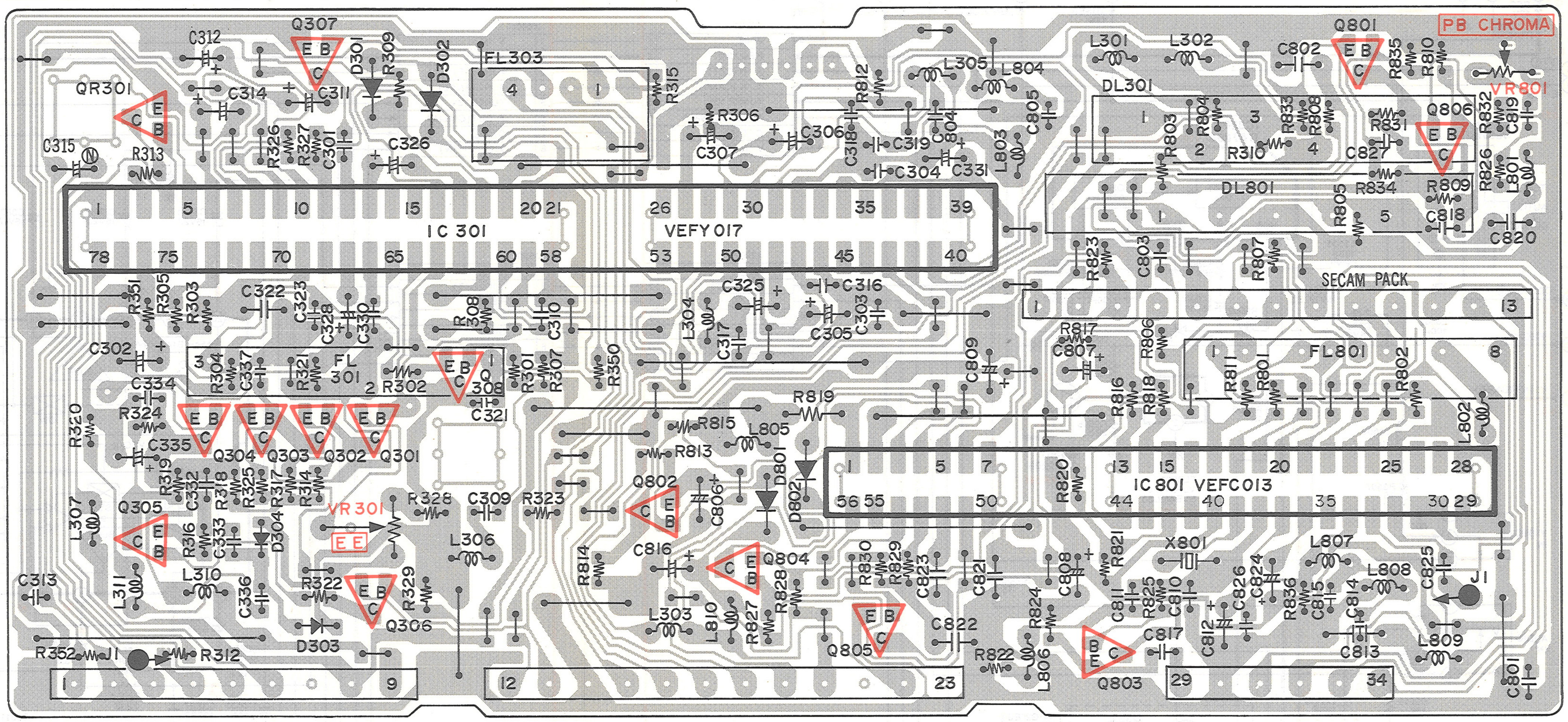
3-17. LUMINANCE & CHROMINANCE Section In Main C.B.A. (VEP03440A: NV-G21EG) (VEP03440C: NV-G21B) (VEP03440B: NV-G21EO/EV)

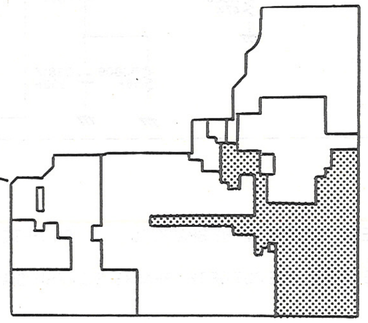

LUMINANCE & CHROMINANCE PACK
IC4001 BA7752ILS
IC6002 μPC393C
P6001
P6002
P3001
P3002
P3003
FL4001
EXCEPT NV-G21B
NV-G21B ONLY
TP4003
TP1001
TP6011
TP1002
TP GND
TP2009
TP3001
TP4001
VR4002
VR3012
Q. ADJ.
J1
J2
J3
J4
J5
J10
J11
J12
Q2001
Q2002
Q3001
Q3002
Q3003
Q6005
Q6018
Q6019
Q6020
Q6021
Q8001
QR3001
QR3002
QR3003
QR6002
QR6006
QR6008
QR6012
QR6013
QR6014
QR6016
D2007
D3001
D3002
D6002
D6003
D6017
D6019
D6020
D6021
D6022
D6023
D6029
D6030
D6635
L3001
L3002
L3003
L3004
L3005
L4001
R2031
R2032
R2033
R2034
R3001
R3002
R3005
R3006
R3008
R3009
R3019
R3020
R4003
R4004
R4005
R4006
R4008
R4009
R4016
R4017
R4023
R4025
R4027
R4030
R6003
R6007
R6008
R6010
R6011
R6022
R6023
R6024
R6025
R6026
R6027
R6028
R6029
R6030
R6031
R6041
R6069
R6070
R6071
R6073
R6074
R6075
R6081
R6085
R6086
R6097
R6098
R6099
R8001
R8002
R8003
C3001
C3002
C3003
C3004
C3006
C3007
C3008
C3012
C3013
C3014
C4002
C4003
C4004
C4005
C4006
C4007
C4015
C4016
C4018
C4019
C4020
C4023
C6007
C6009
C6011
C6014
C6018
C6022
C6023
C6024
C6026
C6030
C8001
C8002
MN1280

G21EG)

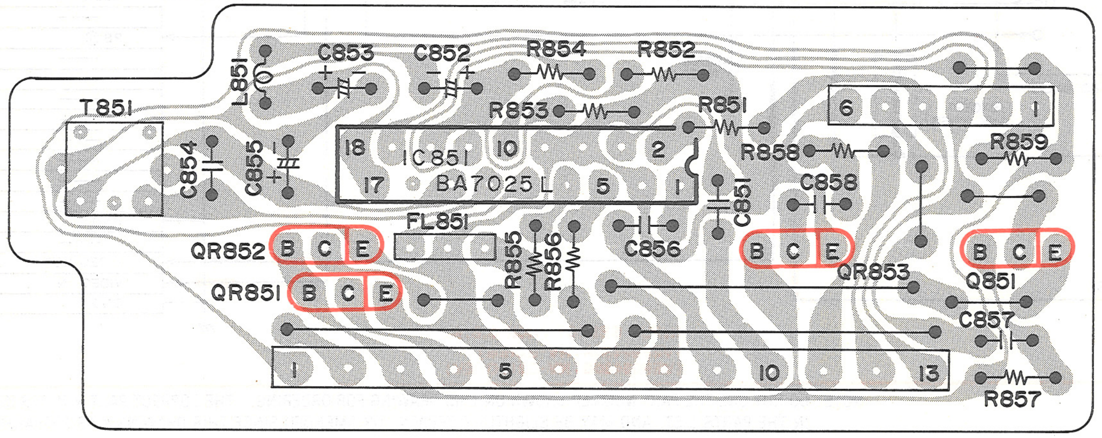

IC4001 BA7752ILS
C4007
C4020
R4017
Q4004
C4015
C4016
C4005
R4023
J11
L4001
TP3002
C4003
C4023
C4004
C4006
R4006
R4005
C4018
R4025
R3002
C3002
C4002
R4004
NV-G21B ONLY
R4027
C4019
R4003
FL4001
TP 4001
R3001
Q3001
L3001
C3001
INPUT SELECT PACK
FOIL CUT AND J14: EXCEPT NV-G21B
J14
EXCEPT NV-G21B
FOIL CUT AND L3505: NV-G21EG ONLY
L3505
R8002
R8003
C8001
R8001
Q8001
TP3001
C3004
C8002
R3004
QR3002
P3003
EXCEPT NV-G21B
EXCEPT NV-G21B
EXCEPT NV-G21B
J12

3-18. LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03381A: NV-G21EG) (VEP03381B: NV-G21B/EO/EV)

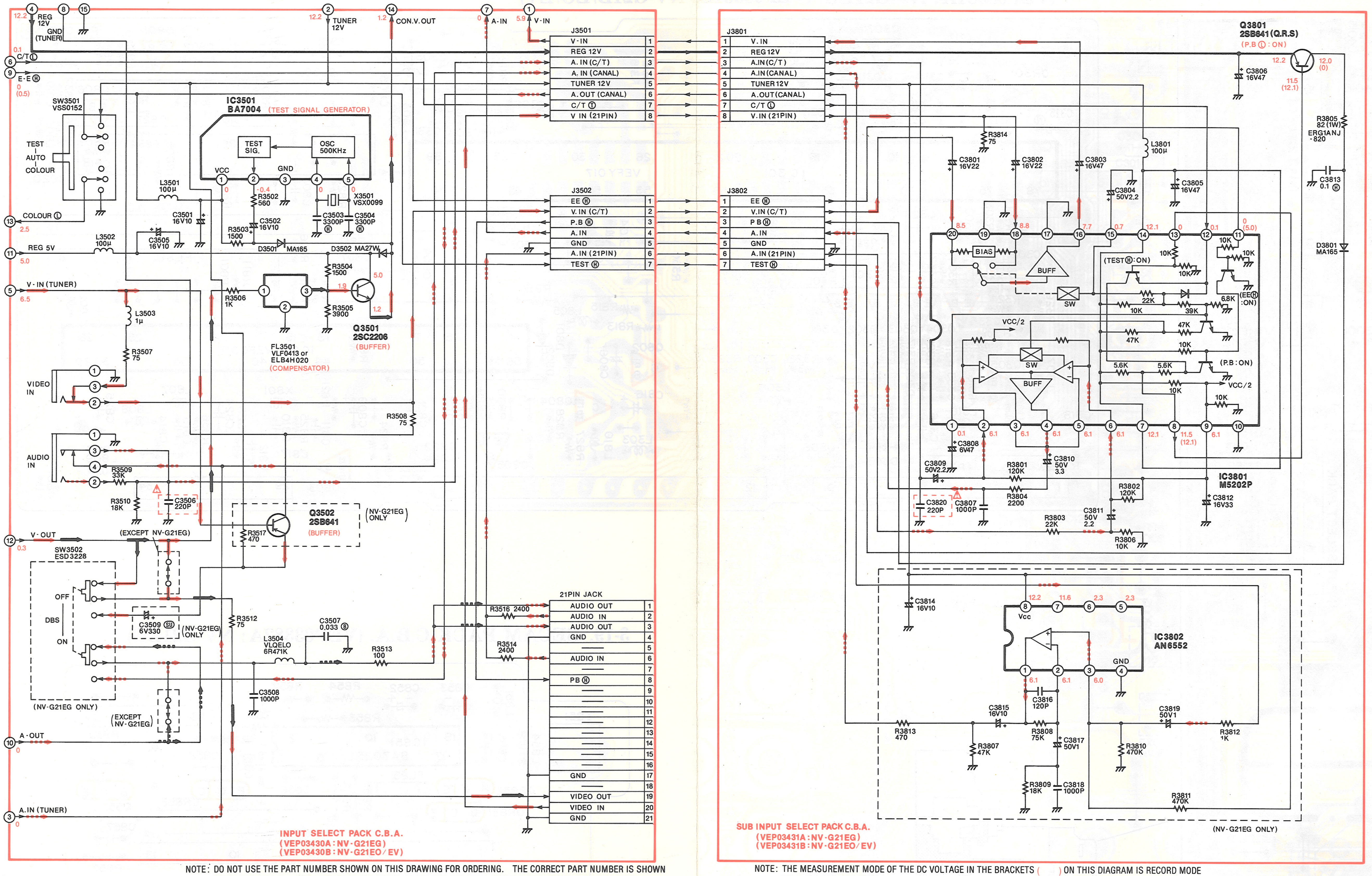

PB CHROMA
IC 301 VEFY017
IC 801 VEFC013
QR301
Q307
FL303
FL 301
FL801
DL301
DL801
SECAM PACK
VR 301
VR801
Q301
Q302
Q303
Q304
Q305
Q306
Q308
Q801
Q802
Q803
Q804
Q805
Q806
D301
D302
D303
D304
D801
D802
X801
L301
L302
L303
L304
L305
L306
L307
L310
L311
L801
L802
L803
L804
L805
L806
L807
L808
L809
L810
J1
R352
R312
C312
C314
C311
C315
R313
C326
C307
C306
C318
C319
C304
C331
C802
C827
R310
C818
C820
C322
C323
C325
C316
C303
C305
C302
C334
R324
C335
C309
R323
R328
C806
C816
C313
C822
C817
C813
C801



3-19. SECAM PACK C.B.A. (VEP03382A: NV-G21EG)


T851
L851
C853
C852
R854
R852
R853
R851
IC851 BA7025L
C854
C855
C851
R858
R859
C858
FL851
QR852
QR851
R855
R856
C856
QR853
Q851
C857
R857

3-20. INPUT SELECT PACK & SUB INPUT SELECT PACK SCHEMATIC DIAGRAM (NV-G21EG/EO/EV)


REG 12V
GND (TUNER)
C/T Ⓛ
E-E Ⓗ
SW3501 VSS0152
TEST
AUTO
COLOUR
COLOUR Ⓛ
REG 5V
V-IN (TUNER)
VIDEO IN
AUDIO IN
V-OUT
SW3502 ESD3228
OFF
DBS
ON
(NV-G21EG ONLY)
A-OUT
A.IN (TUNER)
TUNER 12V
CON.V.OUT
A-IN
V-IN
IC3501 BA7004 (TEST SIGNAL GENERATOR)
TEST SIG.
OSC 500KHz
VCC
GND
X3501 VSX0099
L3501 100µ
L3502 100µ
L3503 1µ
L3504 VLQEL0 6R471K
C3501 16V10
C3502 16V10
C3503 3300P
C3504 3300P
C3505 16V10
C3506 220P
C3507 0.033
C3508 1000P
C3509 6V330
R3502 560
R3503 1500
R3504 1500
R3505 3900
R3506 1K
R3507 75
R3508 75
R3509 33K
R3510 18K
R3512 75
R3513 100
R3514 2400
R3516 2400
R3517 470
D3501 MA165
D3502 MA27W
Q3501 2SC2206 (BUFFER)
Q3502 2SB641 (BUFFER)
(NV-G21EG ONLY)
(EXCEPT NV-G21EG)
FL3501 VLF0413 or ELB4H020 (COMPENSATOR)
J3501
V-IN
REG 12V
A.IN (C/T)
A.IN (CANAL)
TUNER 12V
A.OUT (CANAL)
C/T Ⓣ
V IN (21PIN)
J3502
EE Ⓗ
V.IN (C/T)
P.B Ⓗ
A.IN
GND
A.IN (21PIN)
TEST Ⓗ
21PIN JACK
AUDIO OUT
AUDIO IN
AUDIO OUT
GND
AUDIO IN
PB Ⓗ
GND
VIDEO OUT
VIDEO IN
GND
INPUT SELECT PACK C.B.A.
(VEP03430A: NV-G21EG)
(VEP03430B: NV-G21EO/EV)
J3801
J3802
Q3801 2SB641 (Q.R.S) (P.B Ⓛ: ON)
R3805 82 (1W) ERG1ANJ-820
C3813 0.1 Ⓑ
D3801 MA165
R3814 75
L3801 100µ
C3801 16V22
C3802 16V22
C3803 16V47
C3804 50V2.2
C3805 16V47
C3806 16V47
BIAS
BUFF
SW
VCC/2
(TEST Ⓗ: ON)
(EE Ⓗ: ON)
(P.B: ON)
IC3801 M5202P
C3807 1000P
C3808 6V47
C3809 50V2.2
C3810 50V 3.3
C3811 50V 2.2
C3812 16V33
C3820 220P
R3801 120K
R3802 120K
R3803 22K
R3804 2200
R3806 10K
IC3802 AN6552
Vcc
GND
C3814 16V10
C3815 16V10
C3816 120P
C3817 50V1
C3818 1000P
C3819 50V1
R3807 47K
R3808 75K
R3809 18K
R3810 470K
R3811 470K
R3812 1K
R3813 470
(NV-G21EG ONLY)
SUB INPUT SELECT PACK C.B.A.
(VEP03431A: NV-G21EG)
(VEP03431B: NV-G21EO/EV)

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

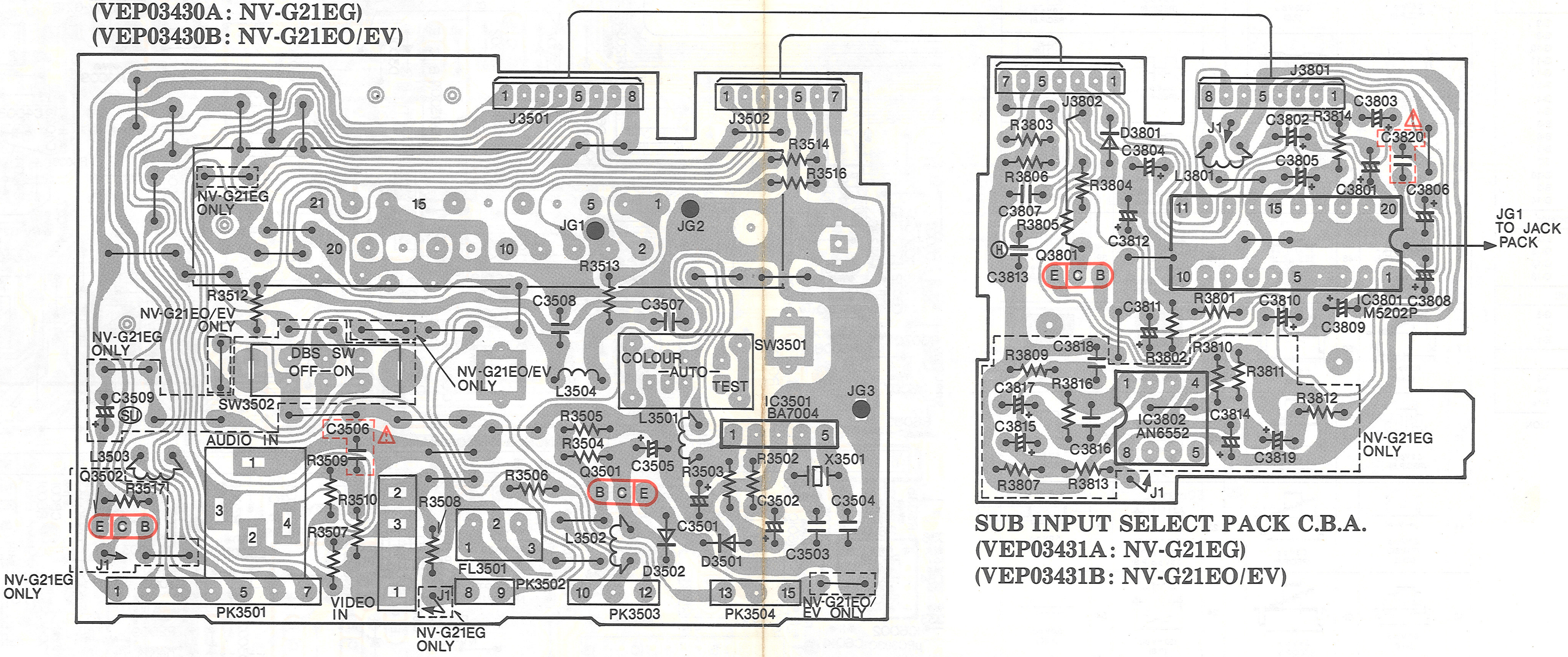
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

Back Page:
LUMINANCE & CHROMINANCE Section

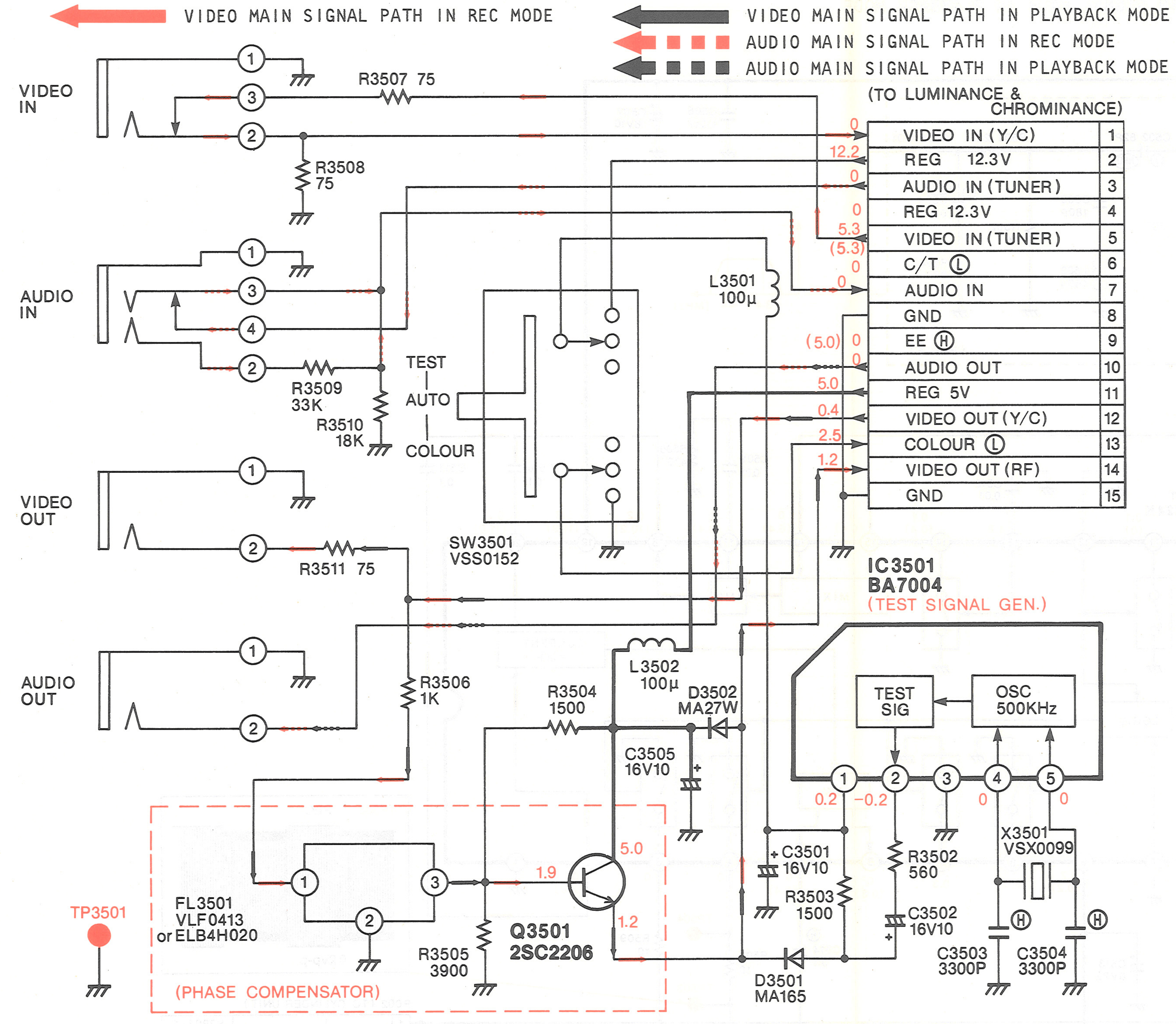
3-21. INPUT SELECT PACK C.B.A. (VEP03430A: NV-G21EG) (VEP03430B: NV-G21EO/EV) & SUB INPUT SELECT PACK C.B.A. (VEP03431A: NV-G21EG) (VEP03431B: NV-G21EO/EV)

INPUT SELECT PACK C.B.A.
(VEP03430A: NV-G21EG)
(VEP03430B: NV-G21EO/EV)


J3501
J3502
R3514
R3516
NV-G21EG ONLY
21
15
5
1
JG1
JG2
20
10
2
R3513
R3512
NV-G21EO/EV ONLY
NV-G21EG ONLY
C3508
C3507
DBS SW
OFF—ON
SW3501
COLOUR
AUTO
TEST
NV-G21EO/EV ONLY
L3504
C3509
SU
SW3502
AUDIO IN
C3506
R3509
L3503
Q3502
R3517
E C B
J1
R3505
R3504
Q3501
B C E
R3506
C3505
L3501
IC3501
BA7004
JG3
R3502
R3503
X3501
R3510
R3508
R3507
C3502
C3504
C3501
L3502
D3502
D3501
C3503
FL3501
PK3501
PK3502
PK3503
PK3504
VIDEO IN
NV-G21EG ONLY
NV-G21EO/EV ONLY
J3802
J3801
R3803
D3801
C3804
R3806
R3804
L3801
C3807
R3805
C3812
Q3801
C3813
E C B
C3802
R3814
C3803
C3820
C3805
C3801
C3806
11
15
20
10
5
1
JG1 TO JACK PACK
C3811
R3801
C3810
IC3801
M5202P
C3808
C3809
C3818
R3809
R3802
R3810
R3811
C3817
R3816
IC3802
AN6552
C3814
R3812
C3815
C3816
C3819
NV-G21EG ONLY
R3807
R3813
J1

SUB INPUT SELECT PACK C.B.A.
(VEP03431A: NV-G21EG)
(VEP03431B: NV-G21EO/EV)

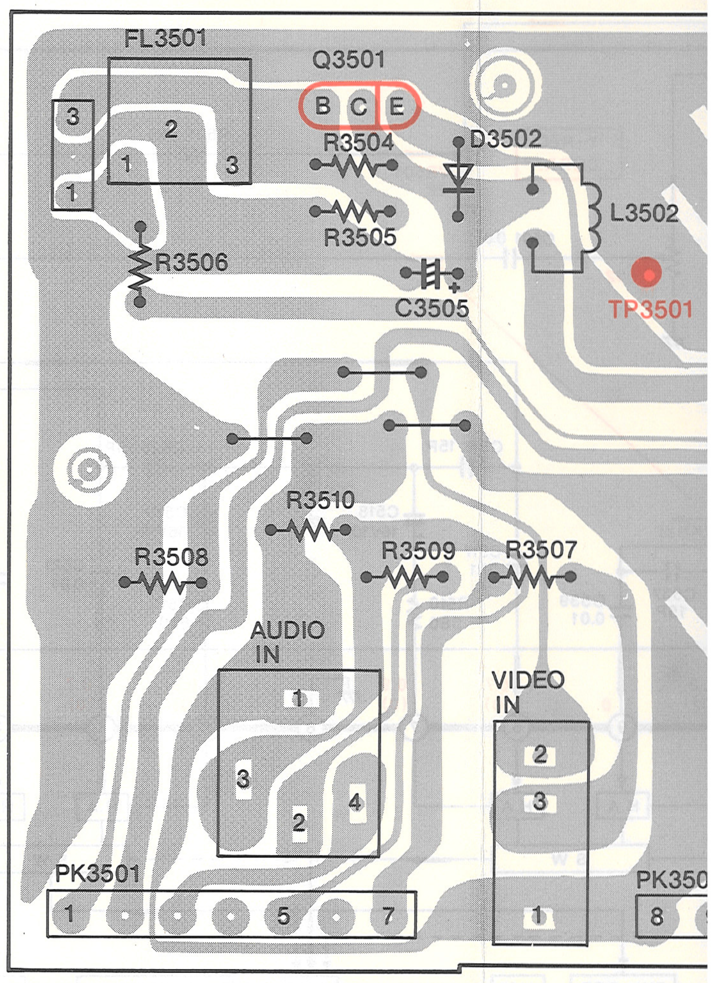
3-22. INPUT SELECT PACK SCHEMATIC DIAGRAM (NV-G21B)


VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE
VIDEO IN
AUDIO IN
VIDEO OUT
AUDIO OUT
R3507 75
R3508 75
R3509 33K
R3510 18K
R3511 75
R3506 1K
R3504 1500
R3505 3900
TEST
AUTO
COLOUR
SW3501 VSS0152
L3501 100µ
L3502 100µ
D3502 MA27W
C3505 16V10
(TO LUMINANCE & CHROMINANCE)
VIDEO IN (Y/C) 1
REG 12.3V 2
AUDIO IN (TUNER) 3
REG 12.3V 4
VIDEO IN (TUNER) 5
C/T Ⓛ 6
AUDIO IN 7
GND 8
EE Ⓗ 9
AUDIO OUT 10
REG 5V 11
VIDEO OUT (Y/C) 12
COLOUR Ⓛ 13
VIDEO OUT (RF) 14
GND 15
0
12.2
0
0
5.3
(5.3)
0
0
(5.0) 0
0
5.0
0.4
2.5
1.2
IC3501
BA7004
(TEST SIGNAL GEN.)
TEST SIG
OSC 500KHz
0.2
-0.2
0
0
X3501 VSX0099
C3501 16V10
R3502 560
R3503 1500
C3502 16V10
C3503 3300P
C3504 3300P
Ⓗ
Ⓗ
D3501 MA165
TP3501
FL3501 VLF0413 or ELB4H020
(PHASE COMPENSATOR)
1.9
5.0
1.2
Q3501 2SC2206

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

3-23. INPUT SELECT PACK C.B.A. (V

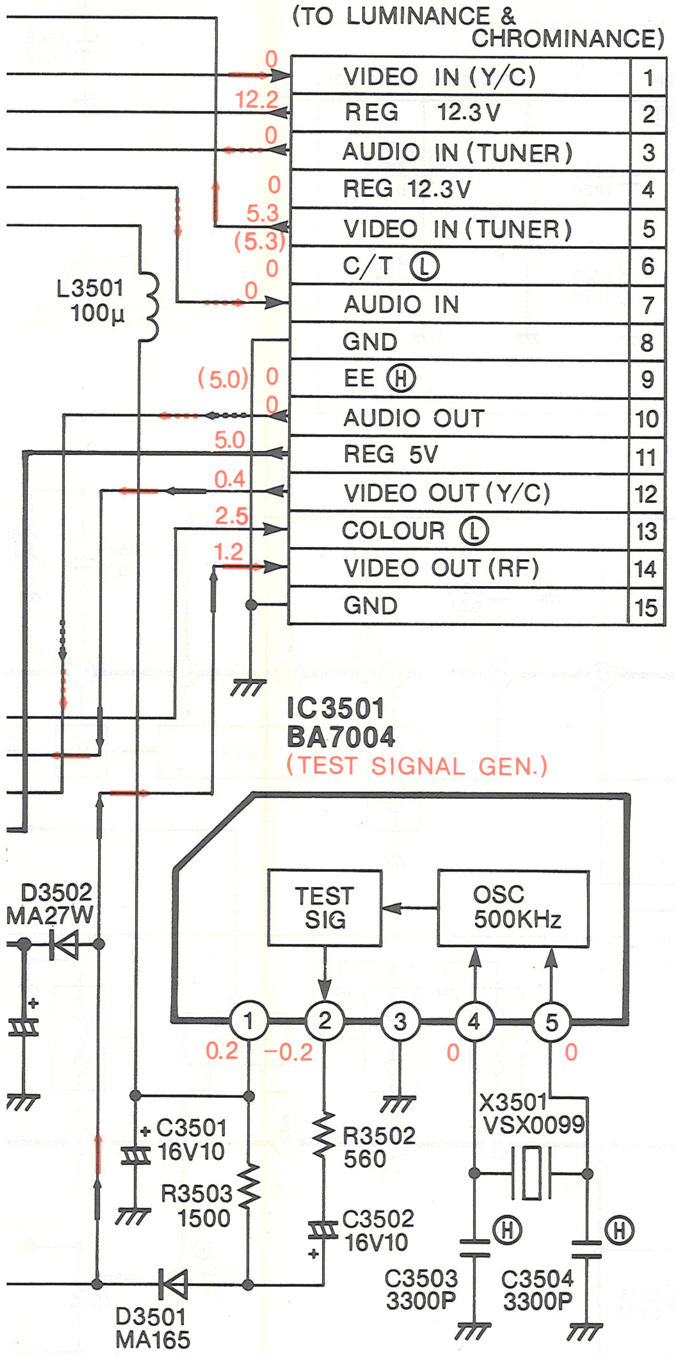

FL3501
Q3501
B C E
R3504
D3502
R3505
L3502
R3506
C3505
TP3501
R3510
R3508
R3509
R3507
AUDIO IN
VIDEO IN
PK3501

M (NV-G21B)

▬ VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

▪▪▪ AUDIO MAIN SIGNAL PATH IN REC MODE

▪▪▪ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

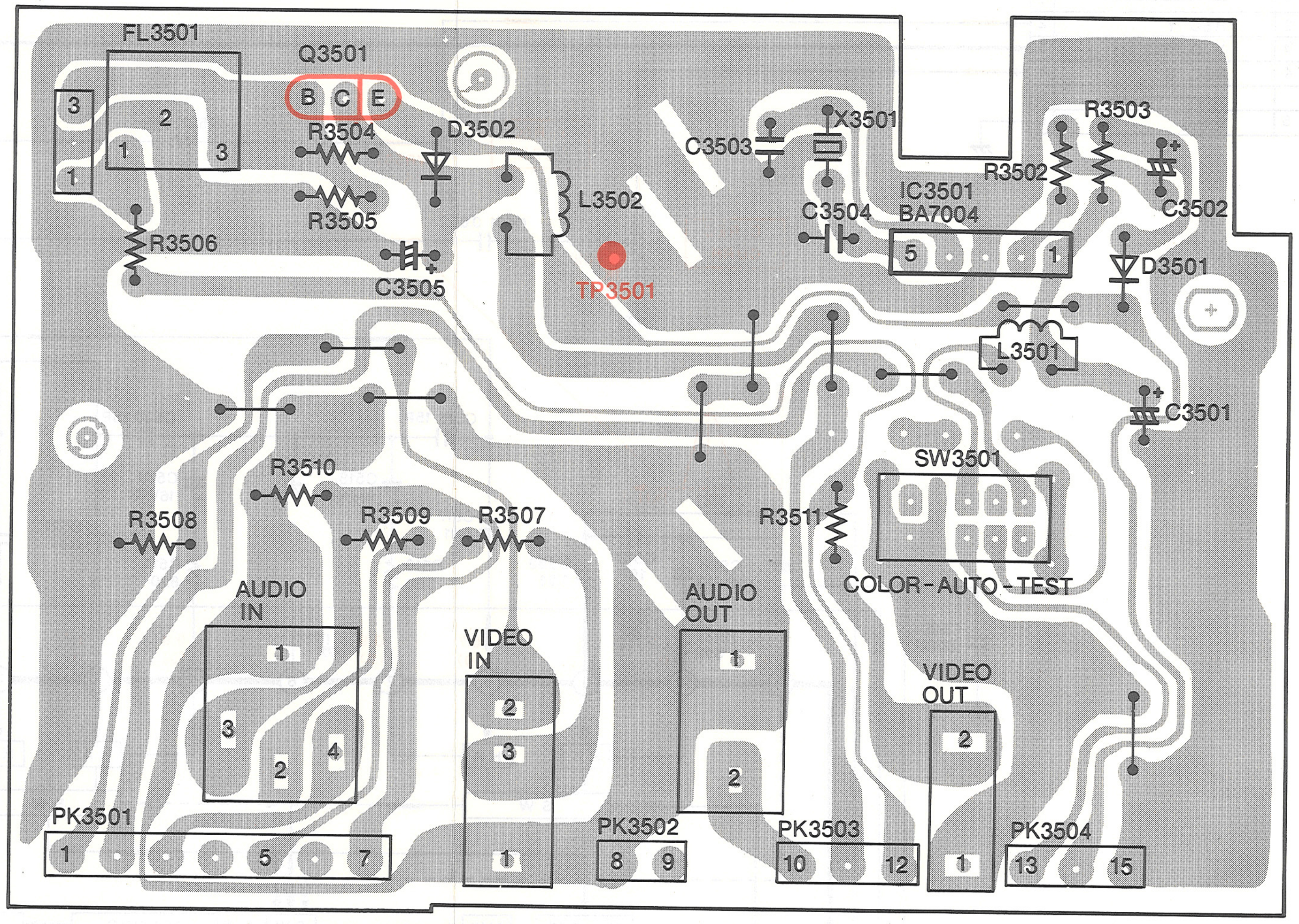

(TO LUMINANCE & CHROMINANCE)
VIDEO IN (Y/C) 1
REG 12.3V 2
AUDIO IN (TUNER) 3
REG 12.3V 4
VIDEO IN (TUNER) 5
C/T Ⓛ 6
AUDIO IN 7
GND 8
EE Ⓗ 9
AUDIO OUT 10
REG 5V 11
VIDEO OUT (Y/C) 12
COLOUR Ⓛ 13
VIDEO OUT (RF) 14
GND 15
0
12.2
0
0
5.3
(5.3)
0
0
(5.0) 0
0
5.0
0.4
2.5
1.2
L3501
100μ
IC3501
BA7004
(TEST SIGNAL GEN.)
TEST SIG
OSC 500KHz
① ② ③ ④ ⑤
0.2
-0.2
0
0
D3502
MA27W
C3501
16V10
R3503
1500
R3502
560
C3502
16V10
X3501
VSX0099
Ⓗ
Ⓗ
C3503
3300P
C3504
3300P
D3501
MA165

ORDERING. THE CORRECT PART NUMBER IS SHOWN
ENDED SINCE THIS DRAWING WAS PREPARED.

( ) ON THIS DIAGRAM IS RECORD MODE

KETS ON THIS DIAGRAM IS PLAYBACK MODE

3-23. INPUT SELECT PACK C.B.A. (VEP03432A: NV-G21B)

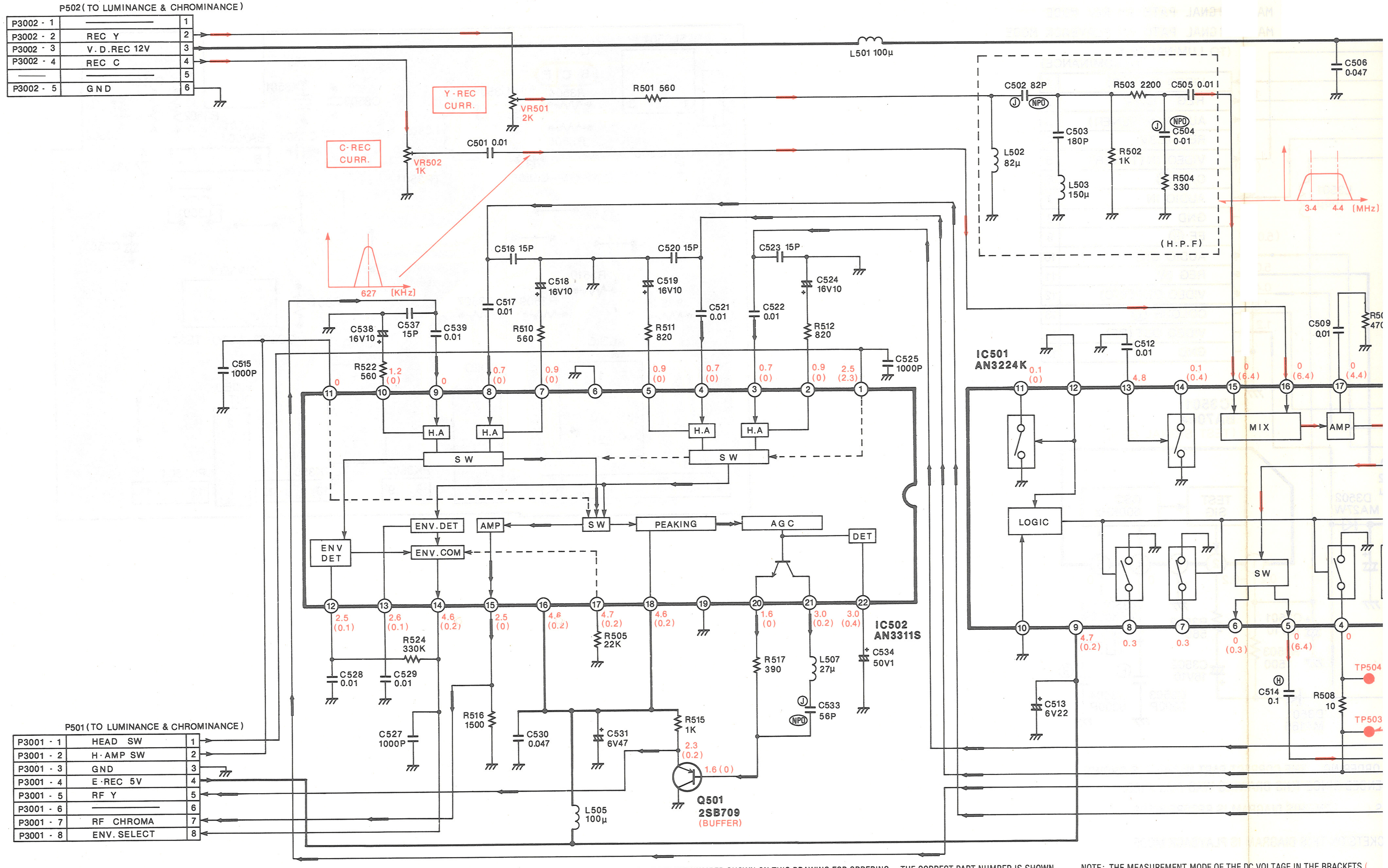

FL3501
3
2
1
3
1
Q3501
B C E
R3504
R3505
D3502
L3502
R3506
C3505
TP3501
C3503
X3501
C3504
IC3501
BA7004
5
1
R3502
R3503
C3502
D3501
L3501
C3501
SW3501
R3510
R3508
R3509
R3507
R3511
COLOR - AUTO - TEST
AUDIO IN
1
3
2
4
VIDEO IN
2
3
1
AUDIO OUT
1
2
VIDEO OUT
2
1
PK3501
1
5
7
PK3502
8
9
PK3503
10
12
PK3504
13
15

Next Page:
HEAD AMP PACK Section

3-24. HEAD AMP PACK SCHEMATIC DIAGRAM

MAIN SIGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBACK MODE


P502 (TO LUMINANCE & CHROMINANCE)
P3002 - 1
P3002 - 2 REC Y
P3002 - 3 V.D.REC 12V
P3002 - 4 REC C
P3002 - 5 GND
Y-REC CURR.
C-REC CURR.
VR501 2K
VR502 1K
C501 0.01
R501 560
L501 100μ
C502 82P
R503 2200
C505 0.01
C506 0.047
C503 180P
C504 0.01
L502 82μ
L503 150μ
R502 1K
R504 330
(H.P.F)
3.4
4.4
(MHz)
627
(KHz)
C516 15P
C520 15P
C523 15P
C518 16V10
C519 16V10
C524 16V10
C517 0.01
C521 0.01
C522 0.01
R510 560
R511 820
R512 820
C525 1000P
C538 16V10
C537 15P
C539 0.01
R522 560
C515 1000P
H.A
S W
ENV.DET
AMP
PEAKING
AGC
DET
ENV DET
ENV.COM
IC502 AN3311S
R524 330K
C528 0.01
C529 0.01
C527 1000P
R516 1500
C530 0.047
C531 6V47
R505 22K
R515 1K
R517 390
L507 27μ
C534 50V1
C533 56P
NPO
L505 100μ
Q501 2SB709 (BUFFER)
IC501 AN3224K
C512 0.01
C509 0.01
MIX
AMP
LOGIC
SW
C513 6V22
C514 0.1
R508 10
TP504
TP503
P501 (TO LUMINANCE & CHROMINANCE)
P3001 - 1 HEAD SW
P3001 - 2 H·AMP SW
P3001 - 3 GND
P3001 - 4 E·REC 5V
P3001 - 5 RF Y
P3001 - 6
P3001 - 7 RF CHROMA
P3001 - 8 ENV. SELECT

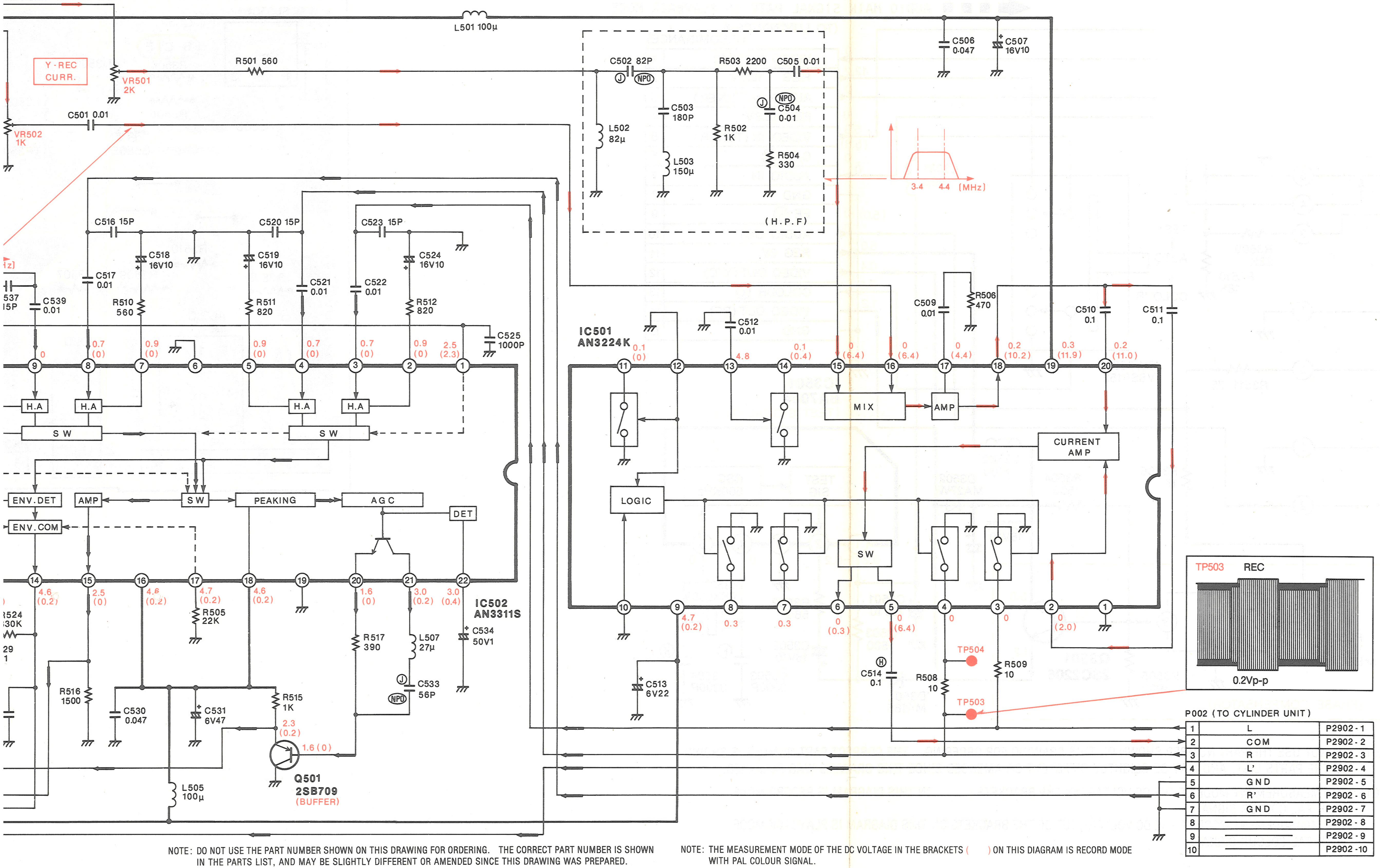
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (
WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS
WITH PAL COLOUR SIGNAL.

AGRAM

MAIN SIGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBACK MODE



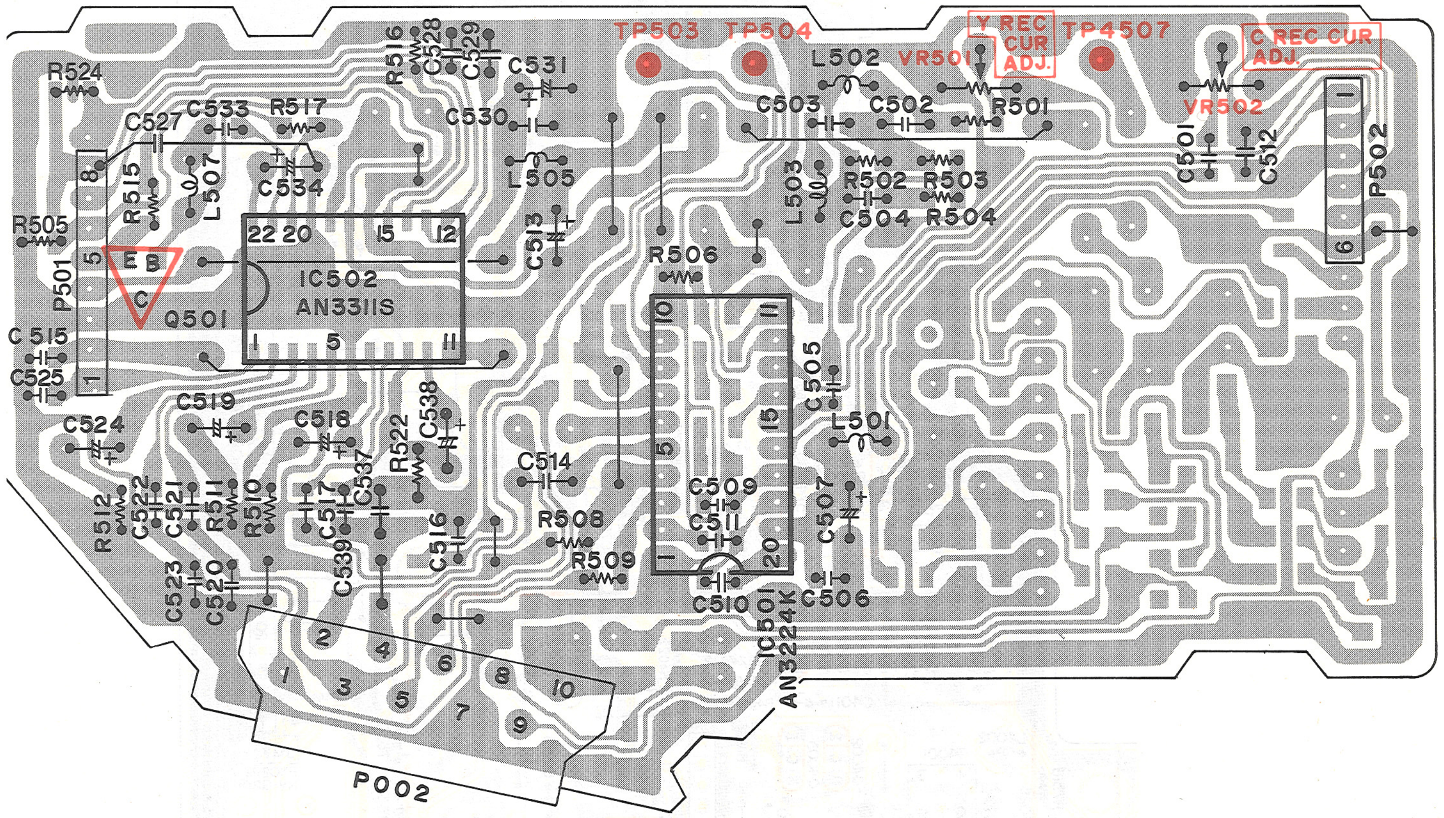
L501 100μ
Y-REC CURR.
VR501 2K
VR502 1K
R501 560
C501 0.01
C502 82P
NPO
C503 180P
L502 82μ
L503 150μ
R503 2200
C505 0.01
C504 0.01
R502 1K
R504 330
(H.P.F)
3.4
4.4
(MHz)
C506 0.047
C507 16V10
C516 15P
C520 15P
C523 15P
C518 16V10
C519 16V10
C524 16V10
C517 0.01
C521 0.01
C522 0.01
C539 0.01
R510 560
R511 820
R512 820
C525 1000P
H.A
S W
ENV.DET
ENV.COM
AMP
PEAKING
AGC
DET
IC502 AN3311S
R505 22K
R516 1500
C530 0.047
C531 6V47
R515 1K
R517 390
L507 27μ
C533 56P
C534 50V1
L505 100μ
Q501 2SB709 (BUFFER)
IC501 AN3224K
C512 0.01
C509 0.01
R506 470
C510 0.1
C511 0.1
MIX
AMP
CURRENT AMP
LOGIC
SW
C513 6V22
C514 0.1
R508 10
R509 10
TP504
TP503
TP503 REC
0.2Vp-p
P002 (TO CYLINDER UNIT)

1	L	P2902 - 1
2	COM	P2902 - 2
3	R	P2902 - 3
4	L'	P2902 - 4
5	GND	P2902 - 5
6	R'	P2902 - 6
7	GND	P2902 - 7
8		P2902 - 8
9		P2902 - 9
10		P2902 - 10

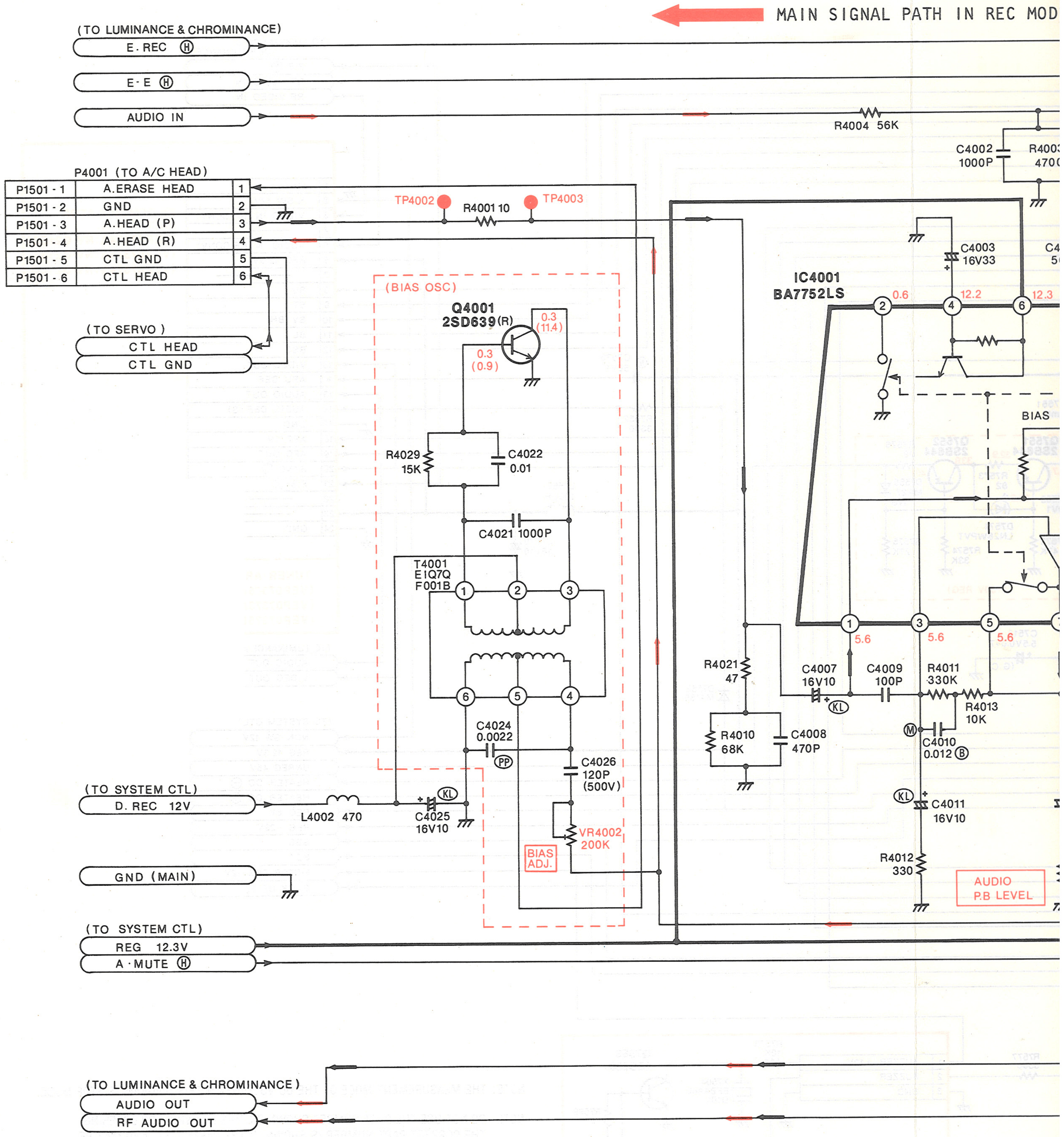
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

3-25. HEAD AMP PACK C.B.A. (VEP05097E)


TP503
TP504
Y REC CUR ADJ.
TP4507
C REC CUR ADJ.
L502
VR501
VR502
R501
R502
R503
R504
R505
R506
R508
R509
R510
R511
R512
R515
R516
R517
R522
R524
C501
C502
C503
C504
C505
C506
C507
C509
C510
C511
C512
C513
C514
C515
C516
C517
C518
C519
C520
C521
C522
C523
C524
C525
C527
C528
C529
C530
C531
C533
C534
C537
C538
C539
L501
L503
L505
L507
IC502
AN3311S
IC501
AN3224K
Q501
E
B
C
P501
P502
P002

3-26. AUDIO SCHEMATIC DIAGRAM

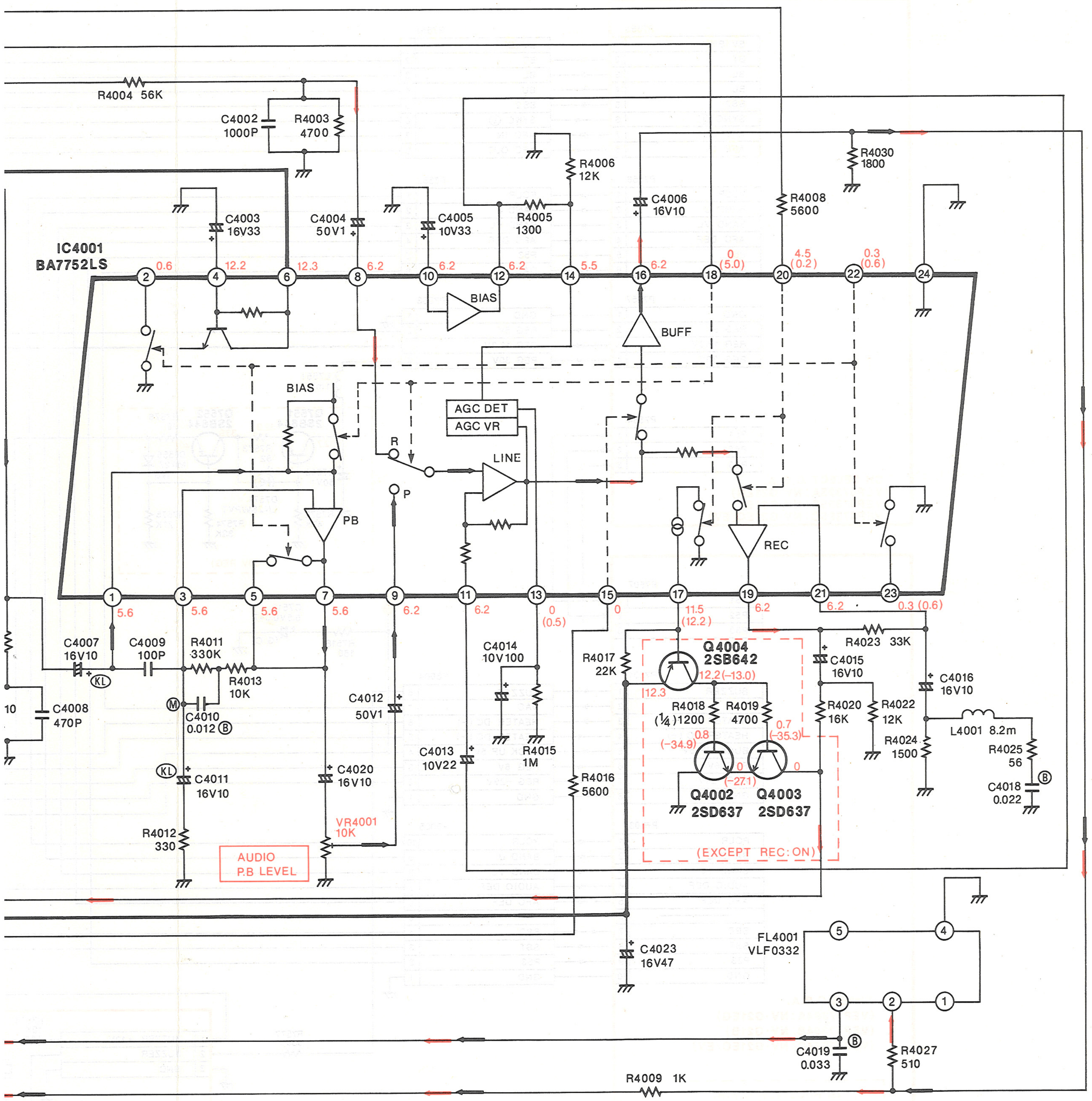

MAIN SIGNAL PATH IN REC MOD
(TO LUMINANCE & CHROMINANCE)
E. REC Ⓗ
E-E Ⓗ
AUDIO IN
R4004 56K
C4002 1000P
P4001 (TO A/C HEAD)
P1501 - 1 A.ERASE HEAD 1
P1501 - 2 GND 2
P1501 - 3 A.HEAD (P) 3
P1501 - 4 A.HEAD (R) 4
P1501 - 5 CTL GND 5
P1501 - 6 CTL HEAD 6
TP4002
R4001 10
TP4003
C4003 16V33
IC4001
BA7752LS
(BIAS OSC)
Q4001
2SD639(R)
0.3 (11.4)
0.3 (0.9)
(TO SERVO)
CTL HEAD
CTL GND
R4029 15K
C4022 0.01
C4021 1000P
T4001 EIQ7Q F001B
C4024 0.0022
C4026 120P (500V)
VR4002 200K
BIAS ADJ.
(TO SYSTEM CTL)
D. REC 12V
L4002 470
C4025 16V10
GND (MAIN)
(TO SYSTEM CTL)
REG 12.3V
A·MUTE Ⓗ
R4021 47
R4010 68K
C4008 470P
C4007 16V10
C4009 100P
R4011 330K
R4013 10K
C4010 0.012
C4011 16V10
R4012 330
AUDIO PB LEVEL
BIAS
0.6
12.2
12.3
5.6
(TO LUMINANCE & CHROMINANCE)
AUDIO OUT
RF AUDIO OUT

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM I
WITH 1kHz, 0dB SINE WAVE SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS
WITH 1kHz, 0dB SINE WAVE SIGNAL.

3-27. AUDIO Section In Main C.B.A. (VEP03440A: NV-G21EG) (VEP03440C: NV-G21B) (VEP03440B: NV-G21EO/EV)

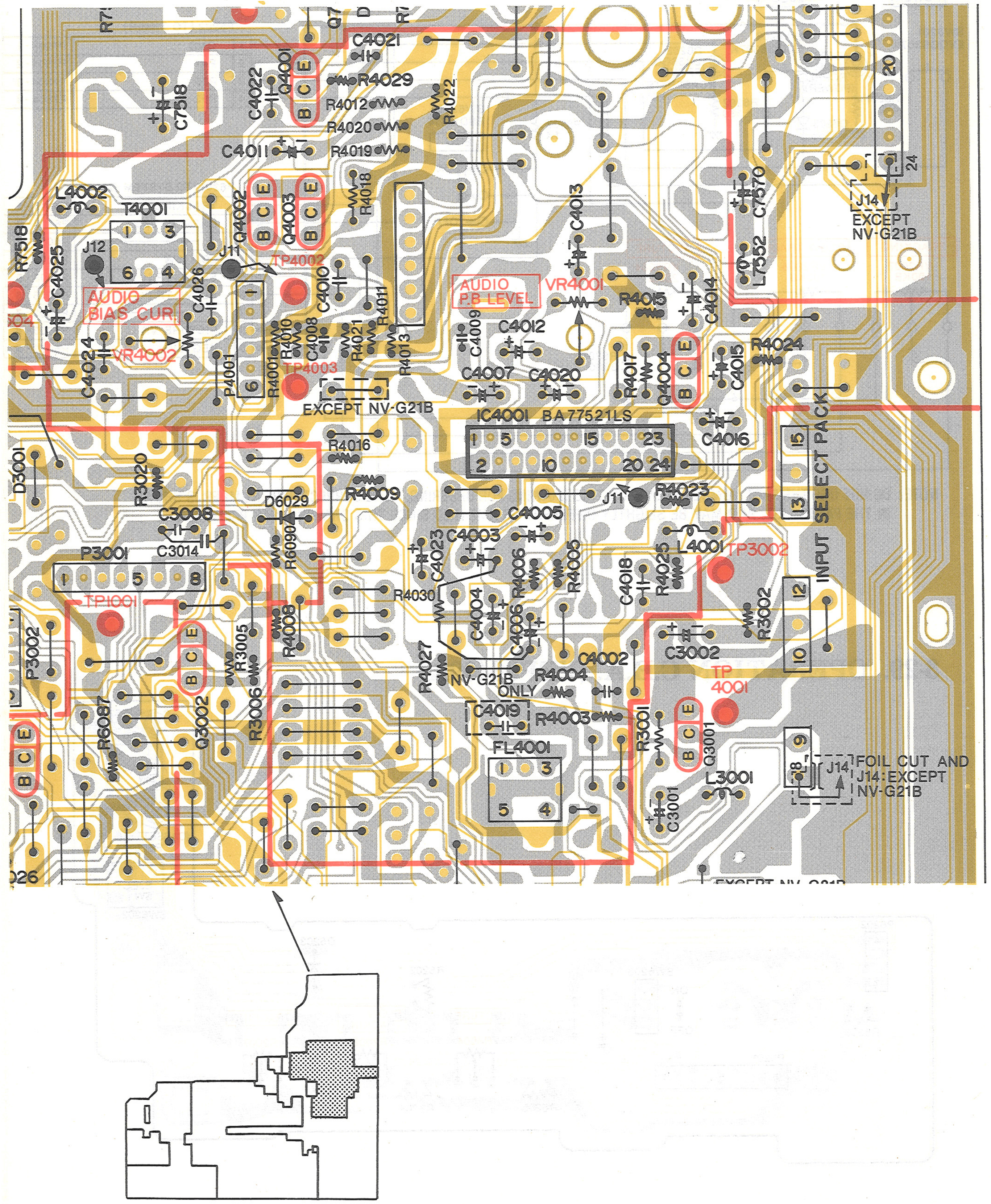
🟥 MAIN SIGNAL PATH IN REC MODE

← MAIN SIGNAL PATH IN PLAYBACK MODE

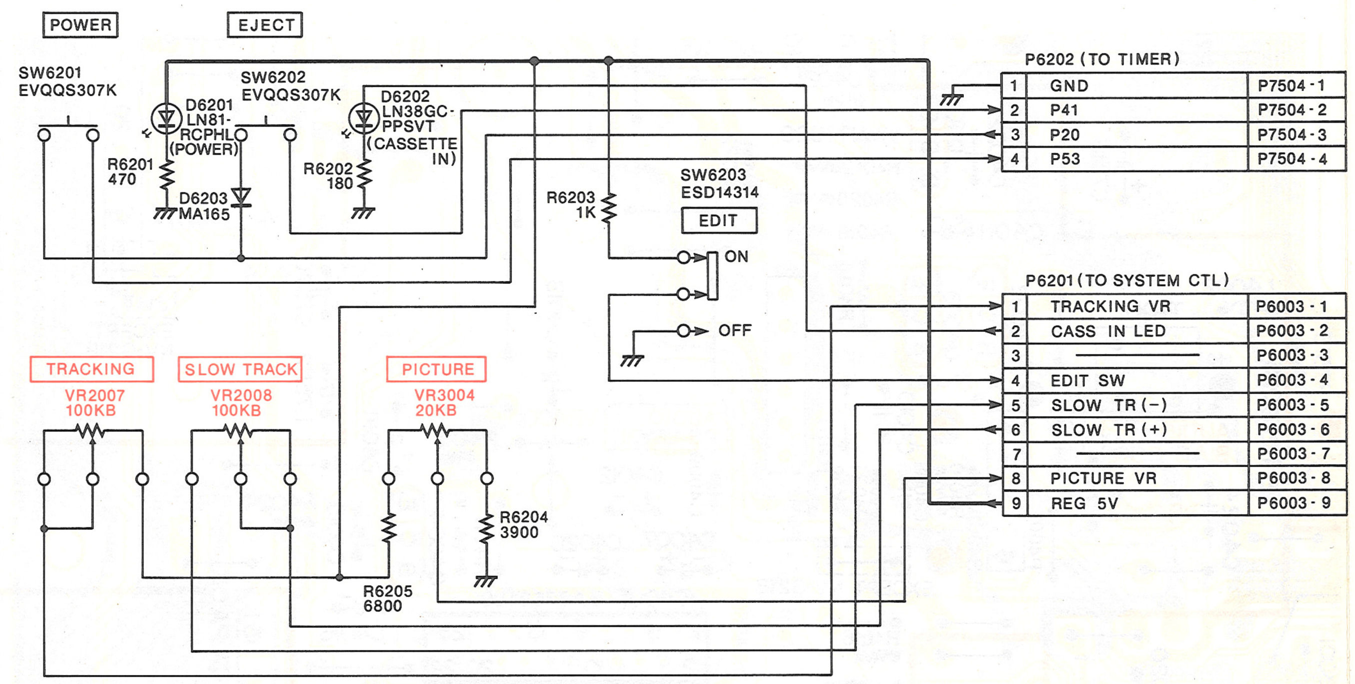

R4004 56K
C4002 1000P
R4003 4700
R4006 12K
C4006 16V10
R4008 5600
R4030 1800
C4003 16V33
C4004 50V1
C4005 10V33
R4005 1300
IC4001 BA7752LS
0.6
12.2
12.3
6.2
5.5
0 (5.0)
4.5 (0.2)
0.3 (0.6)
BIAS
BUFF
AGC DET
AGC VR
LINE
R
P
PB
REC
5.6
0 (0.5)
11.5 (12.2)
C4007 16V10
C4009 100P
R4011 330K
R4013 10K
C4008 470P
C4010 0.012
KL
M
B
C4011 16V10
R4012 330
AUDIO P.B LEVEL
VR4001 10K
C4020 16V10
C4012 50V1
C4013 10V22
C4014 10V100
R4015 1M
R4016 5600
R4017 22K
Q4004 2SB642
12.2 (-13.0)
12.3
R4018 (¼)1200
R4019 4700
0.8 (-34.9)
0.7 (-35.3)
0 (-27.1)
Q4002 2SD637
Q4003 2SD637
(EXCEPT REC:ON)
R4023 33K
C4015 16V10
C4016 16V10
R4020 16K
R4022 12K
R4024 1500
L4001 8.2m
R4025 56
C4018 0.022
C4023 16V47
FL4001 VLF0332
C4019 0.033
R4027 510
R4009 1K

THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE SIGNAL.
THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE SIGNAL.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

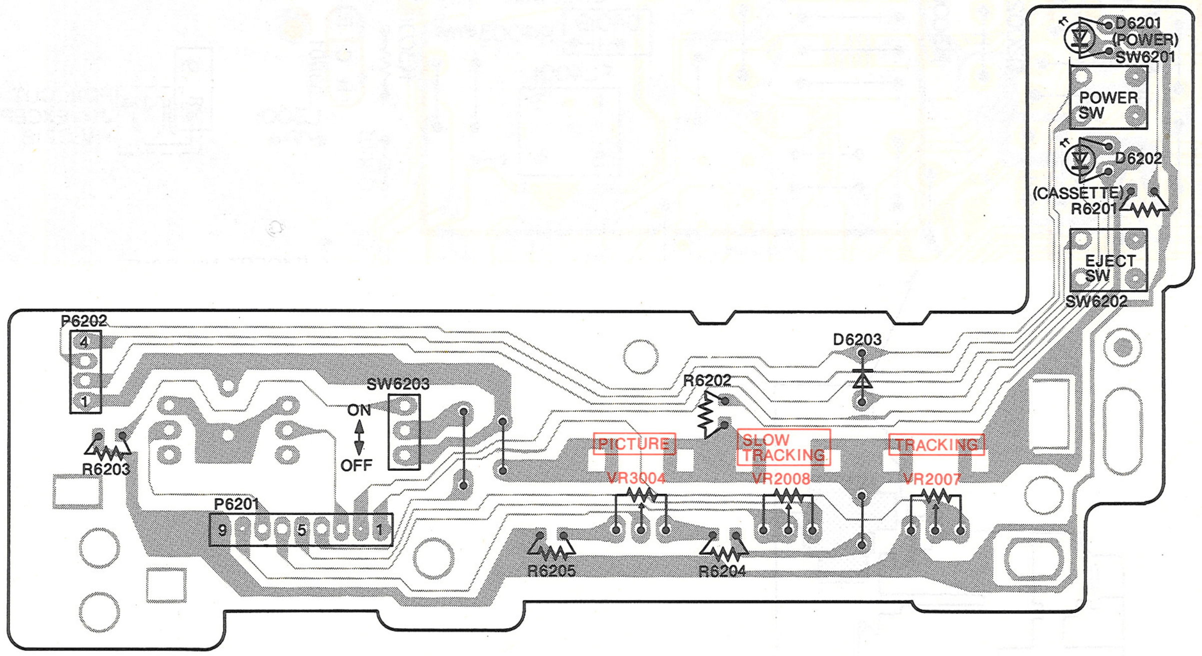

C4021
R4029
R4012
R4020
R4019
C4011
C4022
Q4001
C7518
R4022
L4002
T4001
J12
J11
TP4002
R7518
C4025
AUDIO BIAS CUR.
VR4002
C4024
TP4003
EXCEPT NV-G21B
IC4001 BA7752LS
AUDIO PB LEVEL
VR4001
R4015
C4013
C7570
C7552
J14 EXCEPT NV-G21B
R4024
C4015
C4016
INPUT SELECT PACK
R4023
L4001
TP3002
R3002
C3002
TP 4001
Q3001
L3001
C3001
J14 FOIL CUT AND J14:EXCEPT NV-G21B
FL4001
C4019
R4003
R4004 NV-G21B ONLY
C4002
D3001
R3020
C3008
C3014
P3001
TP1001
D6029
R4009
R6090
R4016
P3002
Q3002
R6087
R3005
R3006
R4008
R4027
R4030
C4023
C4004
C4006
R4006
R4005
C4018
R4025
C4005
C4003
C4007
C4020
C4012
C4009
R4017
Q4004
R4018
R4011
R4021
R4010
R4001
C4008
R4013
C4010
P4001
C4026
Q4002
Q4003
C4014

3-28. OPERATION SCHEMATIC DIAGRAM


POWER
EJECT
SW6201
EVQQS307K
SW6202
EVQQS307K
D6201
LN81-
RCPHL
(POWER)
D6202
LN38GC-
PPSVT
(CASSETTE
IN)
R6201
470
R6202
180
D6203
MA165
R6203
1K
SW6203
ESD14314
EDIT
ON
OFF
P6202 (TO TIMER)
1 GND P7504-1
2 P41 P7504-2
3 P20 P7504-3
4 P53 P7504-4
P6201 (TO SYSTEM CTL)
1 TRACKING VR P6003-1
2 CASS IN LED P6003-2
3 P6003-3
4 EDIT SW P6003-4
5 SLOW TR (−) P6003-5
6 SLOW TR (+) P6003-6
7 P6003-7
8 PICTURE VR P6003-8
9 REG 5V P6003-9
TRACKING
VR2007
100KB
SLOW TRACK
VR2008
100KB
PICTURE
VR3004
20KB
R6204
3900
R6205
6800

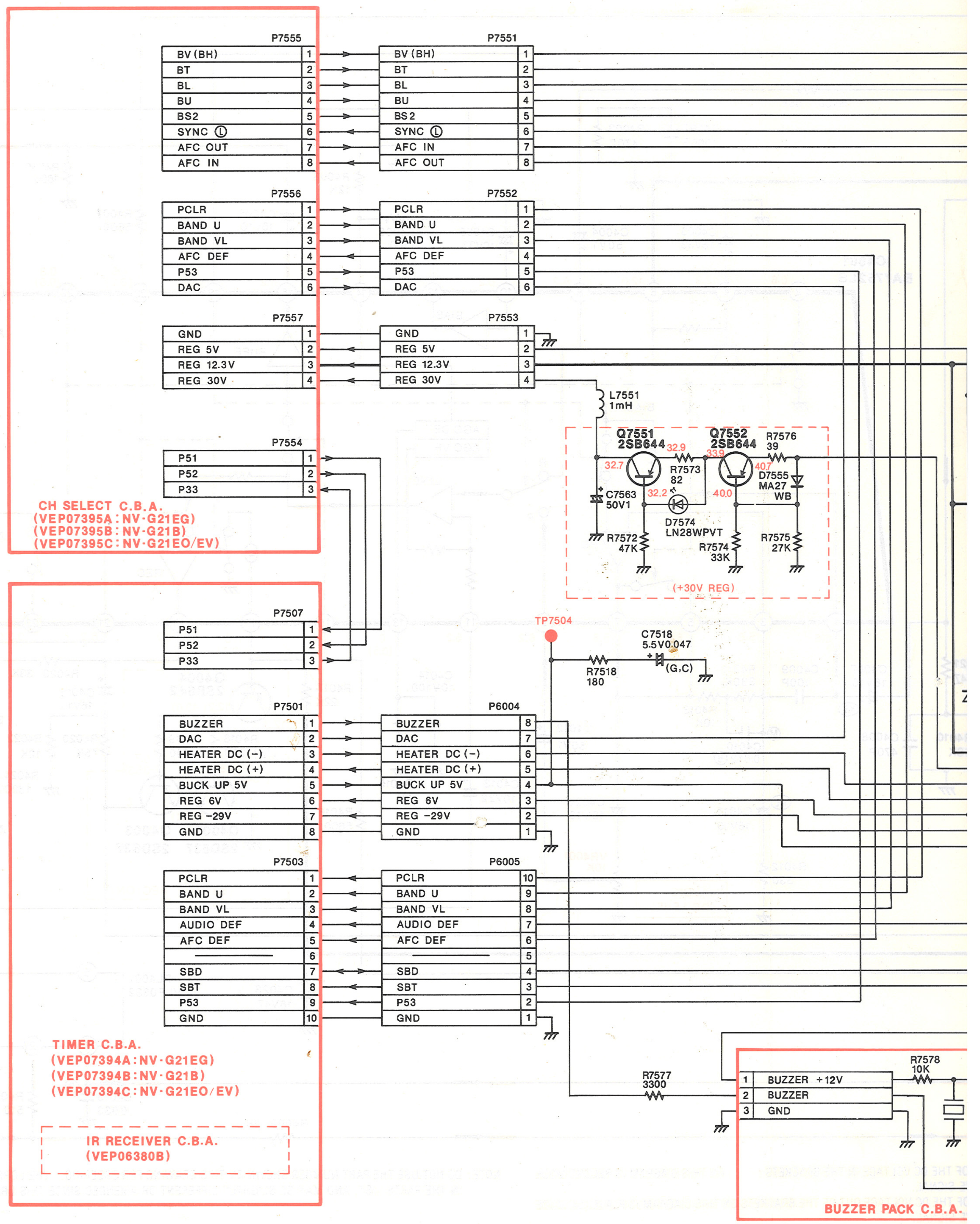
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

3-29. OPERATION C.B.A. (VEP06409A)

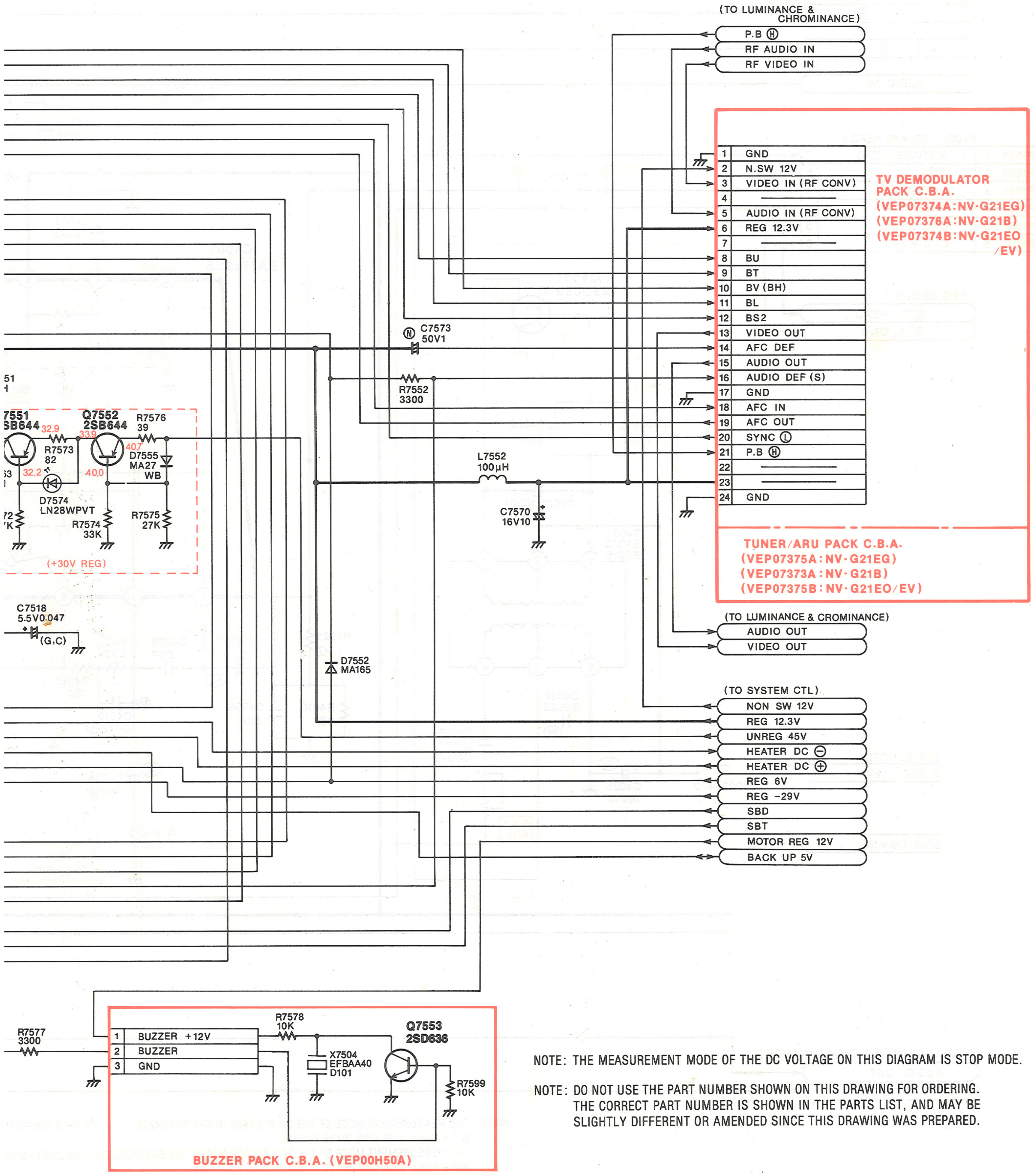

D6201
(POWER)
SW6201
POWER
SW
D6202
(CASSETTE)
R6201
EJECT
SW
SW6202
P6202
4
1
D6203
SW6203
ON
OFF
R6202
R6203
PICTURE
VR3004
SLOW
TRACKING
VR2008
TRACKING
VR2007
P6201
9
5
1
R6205
R6204

Back Page:
AUDIO Section

3-30. CH SELECT INTERFACE SCHEMATIC DIAGRAM


P7555
BV (BH) 1
BT 2
BL 3
BU 4
BS2 5
SYNC Ⓛ 6
AFC OUT 7
AFC IN 8
P7551
BV (BH) 1
BT 2
BL 3
BU 4
BS2 5
SYNC Ⓛ 6
AFC IN 7
AFC OUT 8
P7556
PCLR 1
BAND U 2
BAND VL 3
AFC DEF 4
P53 5
DAC 6
P7552
PCLR 1
BAND U 2
BAND VL 3
AFC DEF 4
P53 5
DAC 6
P7557
GND 1
REG 5V 2
REG 12.3V 3
REG 30V 4
P7553
GND 1
REG 5V 2
REG 12.3V 3
REG 30V 4
P7554
P51 1
P52 2
P33 3
L7551
1mH
Q7551
2SB644
Q7552
2SB644
R7576
39
32.9
33.9
32.7
R7573
82
407
D7555
MA27
WB
C7563
50V1
32.2
40.0
D7574
LN28WPVT
R7572
47K
R7574
33K
R7575
27K
(+30V REG)
CH SELECT C.B.A.
(VEP07395A : NV-G21EG)
(VEP07395B : NV-G21B)
(VEP07395C : NV-G21EO/EV)
P7507
P51 1
P52 2
P33 3
TP7504
C7518
5.5V0.047
(G,C)
R7518
180
P7501
BUZZER 1
DAC 2
HEATER DC (−) 3
HEATER DC (+) 4
BUCK UP 5V 5
REG 6V 6
REG −29V 7
GND 8
P6004
BUZZER 8
DAC 7
HEATER DC (−) 6
HEATER DC (+) 5
BUCK UP 5V 4
REG 6V 3
REG −29V 2
GND 1
P7503
PCLR 1
BAND U 2
BAND VL 3
AUDIO DEF 4
AFC DEF 5
6
SBD 7
SBT 8
P53 9
GND 10
P6005
PCLR 10
BAND U 9
BAND VL 8
AUDIO DEF 7
AFC DEF 6
5
SBD 4
SBT 3
P53 2
GND 1
TIMER C.B.A.
(VEP07394A : NV-G21EG)
(VEP07394B : NV-G21B)
(VEP07394C : NV-G21EO/EV)
IR RECEIVER C.B.A.
(VEP06380B)
R7577
3300
R7578
10K
1 BUZZER +12V
2 BUZZER
3 GND
BUZZER PACK C.B.A.

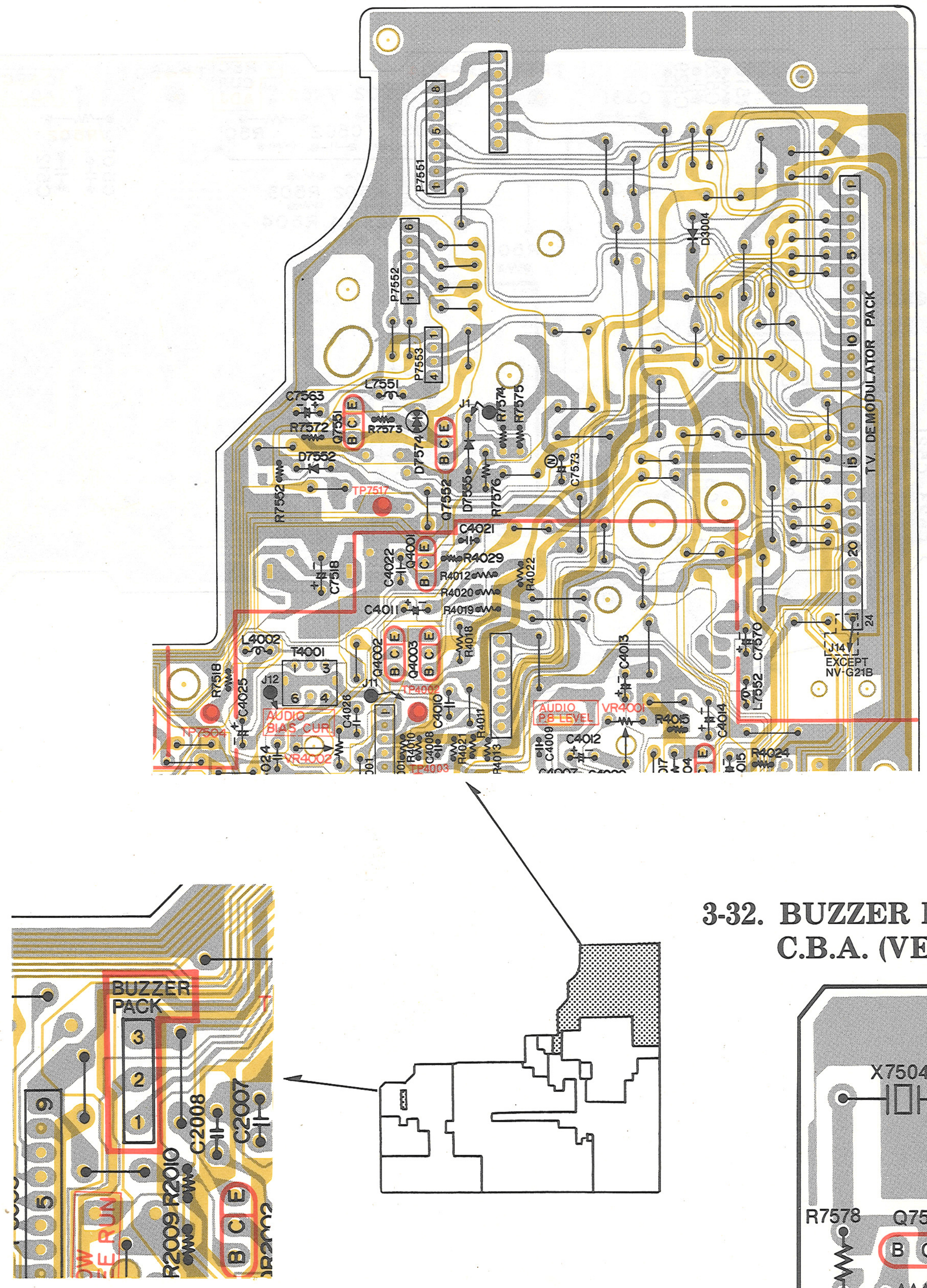
RAM


(TO LUMINANCE & CHROMINANCE)
P.B Ⓗ
RF AUDIO IN
RF VIDEO IN
1 GND
2 N.SW 12V
3 VIDEO IN (RF CONV)
4
5 AUDIO IN (RF CONV)
6 REG 12.3V
7
8 BU
9 BT
10 BV (BH)
11 BL
12 BS2
13 VIDEO OUT
14 AFC DEF
15 AUDIO OUT
16 AUDIO DEF (S)
17 GND
18 AFC IN
19 AFC OUT
20 SYNC Ⓛ
21 P.B Ⓗ
22
23
24 GND
TV DEMODULATOR PACK C.B.A.
(VEP07374A: NV-G21EG)
(VEP07376A: NV-G21B)
(VEP07374B: NV-G21EO/EV)
TUNER/ARU PACK C.B.A.
(VEP07375A: NV-G21EG)
(VEP07373A: NV-G21B)
(VEP07375B: NV-G21EO/EV)
(TO LUMINANCE & CROMINANCE)
AUDIO OUT
VIDEO OUT
(TO SYSTEM CTL)
NON SW 12V
REG 12.3V
UNREG 45V
HEATER DC ⊖
HEATER DC ⊕
REG 6V
REG −29V
SBD
SBT
MOTOR REG 12V
BACK UP 5V
C7573 50V1
R7552 3300
L7552 100μH
C7570 16V10
D7552 MA165
Q7551 2SB644
Q7552 2SB644
R7576 39
R7573 82
D7555 MA27WB
D7574 LN28WPVT
R7574 33K
R7575 27K
32.9
33.9
40.7
32.2
40.0
(+30V REG)
C7518 5.5V0.047
(G.C)
R7577 3300
1 BUZZER +12V
2 BUZZER
3 GND
R7578 10K
Q7553 2SD636
X7504 EFBAA40 D101
R7599 10K
BUZZER PACK C.B.A. (VEP00H50A)

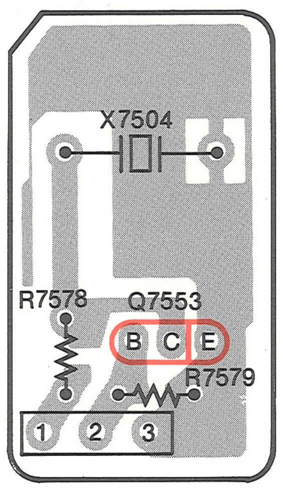
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

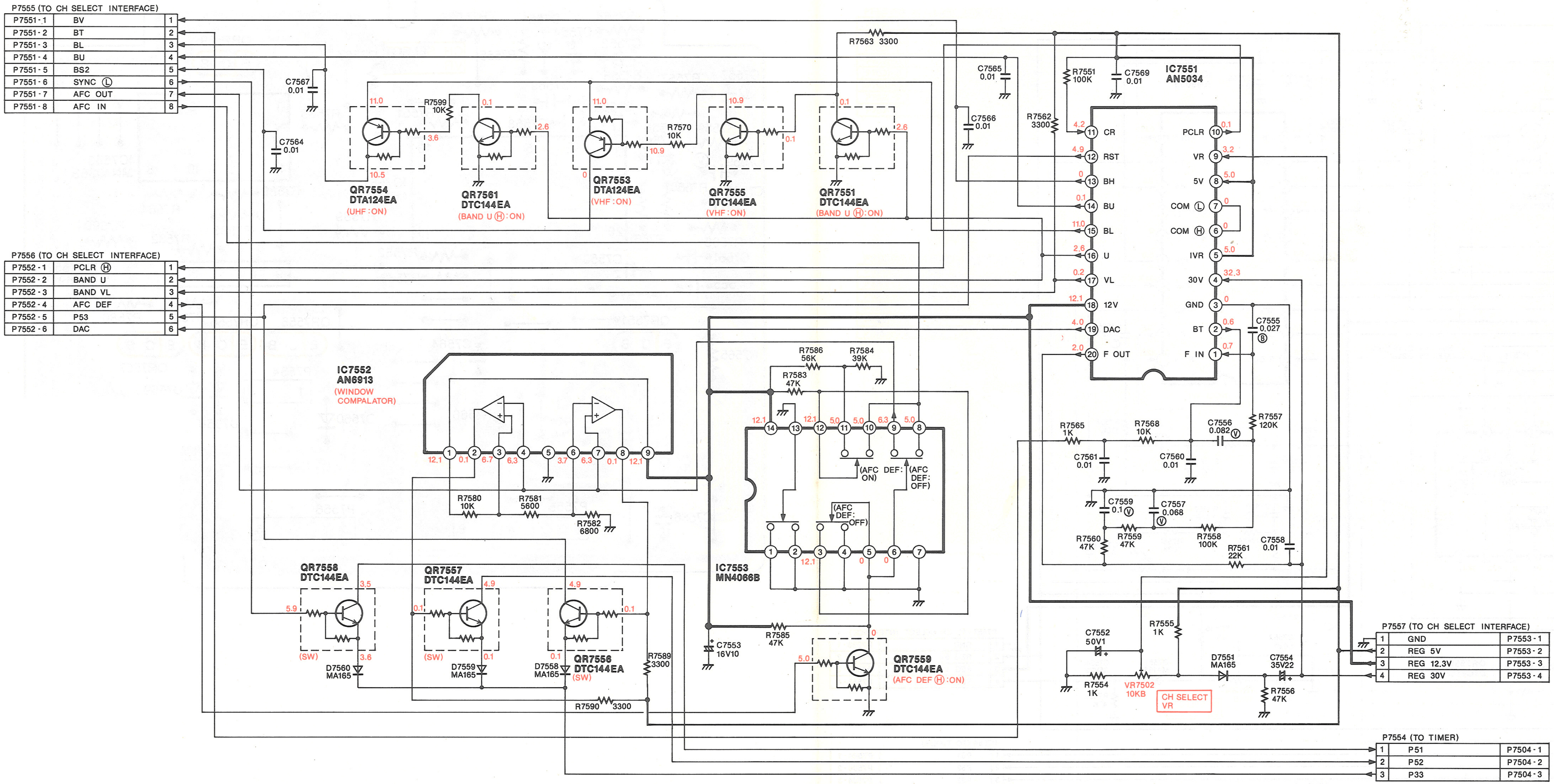
3-31. CH SELECT INTERFACE Section In Main C.B.A. (VEP03440A: NV-G21EG) (VEP03440C: NV-G21B) (VEP03440B: NV-G21EO


P7551
P7552
P7553
T.V. DEMODULATOR PACK
L7551
C7563
R7572
Q7551
R7573
D7574
D7552
R7552
TP7517
Q7552
D7555
R7576
R7574
R7575
C7573
J1
C4021
R4029
R4012
R4020
R4019
C4011
C4022
Q4001
Q4002
Q4003
C7518
L4002
T4001
R7518
C4025
J12
AUDIO BIAS CUR.
VR4002
TP4002
TP4003
AUDIO PB LEVEL
VR4001
R4022
R4018
R4013
C4013
C7570
C4014
L7552
R4015
R4024
C4012
J14 EXCEPT NV-G21B
BUZZER PACK
C2008
C2007
R2009
R2010

3-32. BUZZER PACK C.B.A. (VEP00H50A)


X7504
R7578
Q7553
B C E
R7579
1 2 3

3-33. CH SELECT SCHEMATIC DIAGRAM (NV-G21EG)



P7555 (TO CH SELECT INTERFACE)

P7551-1	BV	1
P7551-2	BT	2
P7551-3	BL	3
P7551-4	BU	4
P7551-5	BS2	5
P7551-6	SYNC Ⓛ	6
P7551-7	AFC OUT	7
P7551-8	AFC IN	8

P7556 (TO CH SELECT INTERFACE)

P7552-1	PCLR Ⓗ	1
P7552-2	BAND U	2
P7552-3	BAND VL	3
P7552-4	AFC DEF	4
P7552-5	P53	5
P7552-6	DAC	6

P7557 (TO CH SELECT INTERFACE)

1	GND	P7553-1
2	REG 5V	P7553-2
3	REG 12,3V	P7553-3
4	REG 30V	P7553-4

P7554 (TO TIMER)

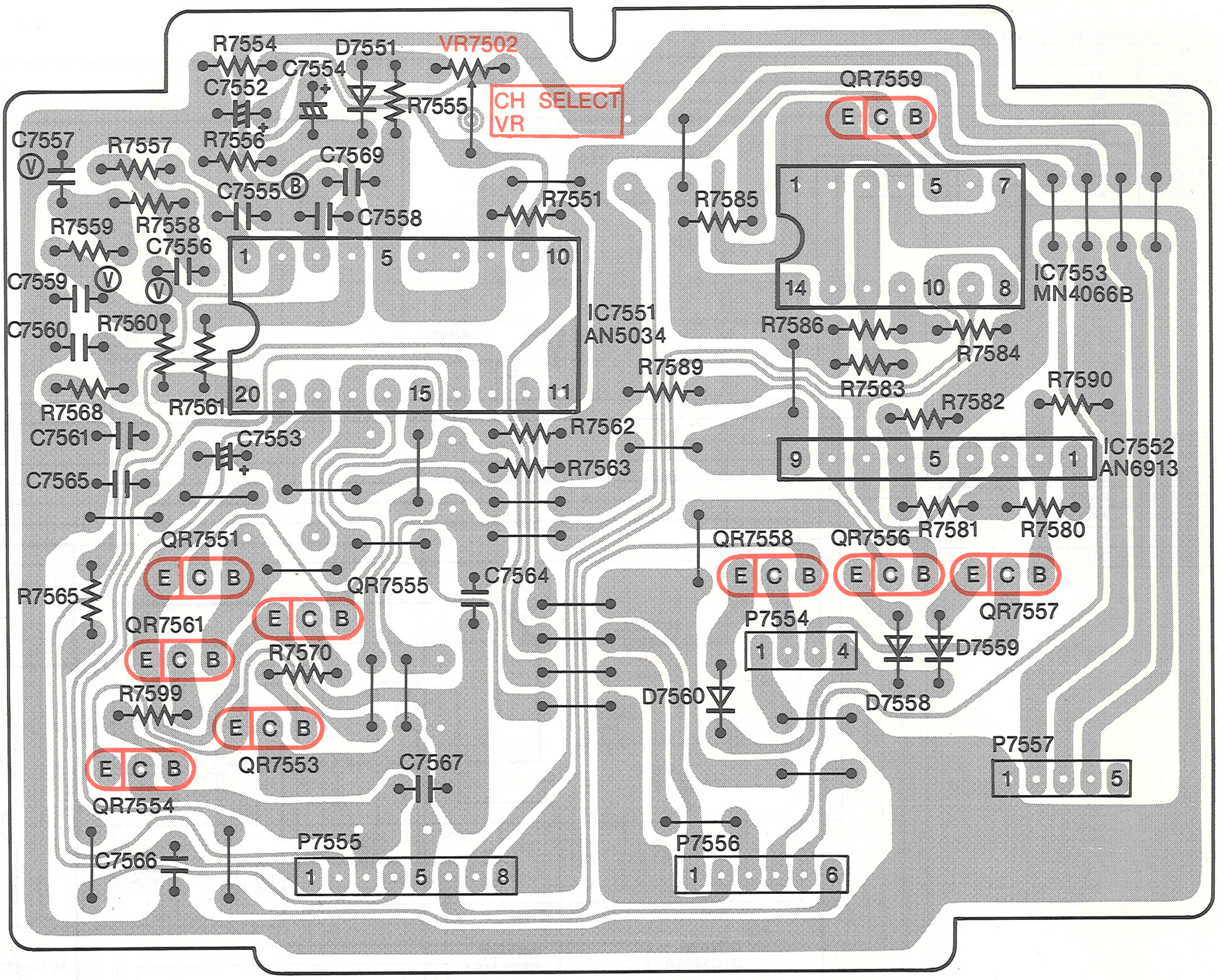
1	P51	P7504-1
2	P52	P7504-2
3	P33	P7504-3

IC7551
AN5034
CR
RST
BH
BU
BL
U
VL
12V
DAC
F OUT
PCLR
VR
5V
COM Ⓛ
COM Ⓗ
IVR
30V
GND
BT
F IN
IC7552
AN6913
(WINDOW COMPALATOR)
IC7553
MN4066B
(AFC DEF: ON)
(AFC DEF: OFF)
QR7554
DTA124EA
(UHF : ON)
QR7561
DTC144EA
(BAND U Ⓗ : ON)
QR7553
DTA124EA
(VHF : ON)
QR7555
DTC144EA
(VHF : ON)
QR7551
DTC144EA
(BAND U Ⓗ : ON)
QR7558
DTC144EA
(SW)
QR7557
DTC144EA
(SW)
QR7556
DTC144EA
(SW)
QR7559
DTC144EA
(AFC DEF Ⓗ : ON)
D7560 MA165
D7559 MA165
D7558 MA165
D7551 MA165
R7563 3300
R7599 10K
R7570 10K
R7551 100K
R7562 3300
R7586 56K
R7584 39K
R7583 47K
R7580 10K
R7581 5600
R7582 6800
R7565 1K
R7568 10K
R7557 120K
R7560 47K
R7559 47K
R7558 100K
R7561 22K
R7555 1K
R7554 1K
R7556 47K
R7585 47K
R7589 3300
R7590 3300
VR7502 10KB
CH SELECT VR
C7567 0.01
C7564 0.01
C7565 0.01
C7566 0.01
C7569 0.01
C7555 0.027
C7556 0.082
C7561 0.01
C7560 0.01
C7559 0.1
C7557 0.068
C7558 0.01
C7552 50V1
C7553 16V10
C7554 35V22

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

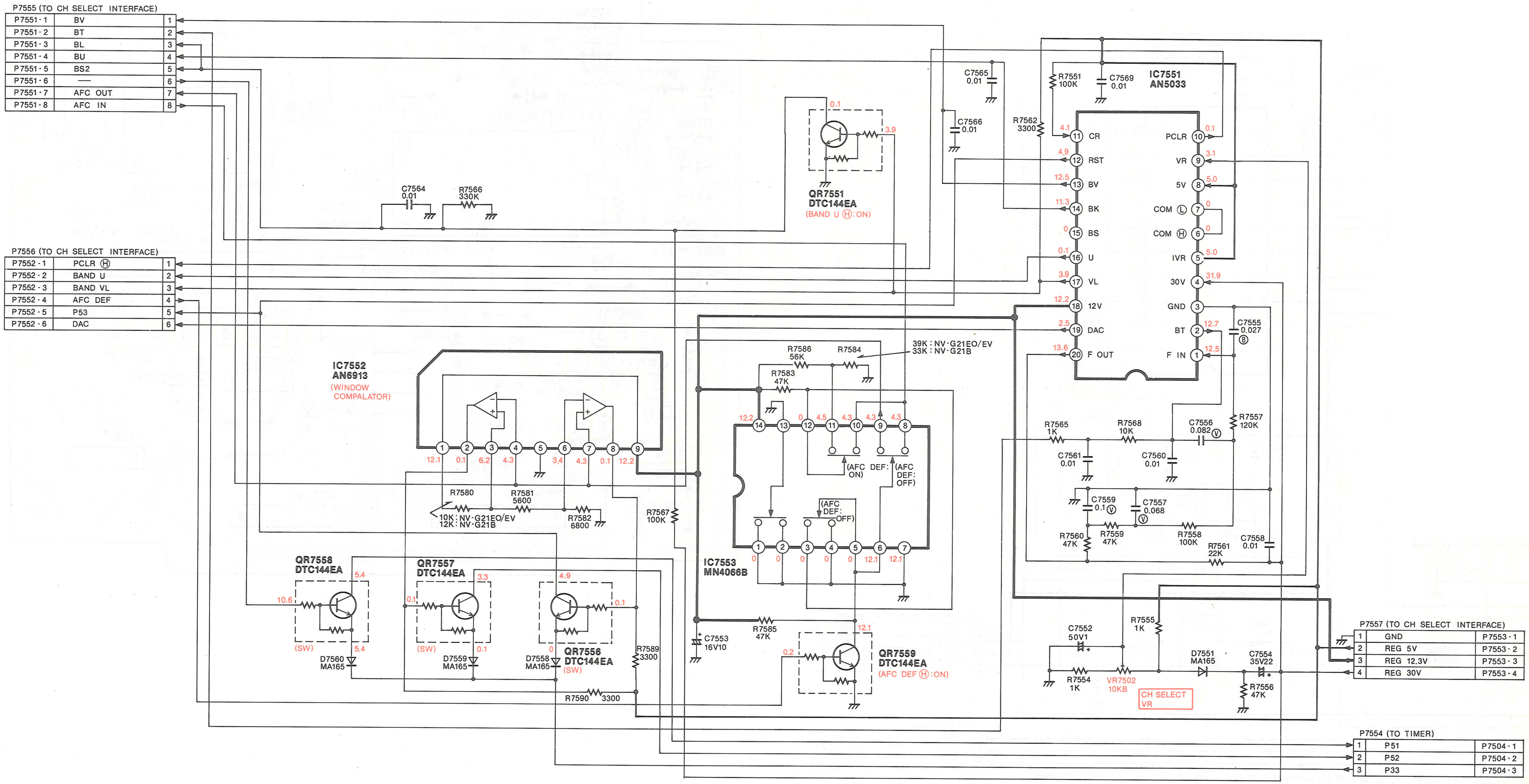
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

3-34. CH SELECT C.B.A. (VEP07395A: NV-G21EG)


R7554
D7551
VR7502
C7554
C7552
R7555
CH SELECT VR
QR7559
E C B
C7557
R7557
R7556
C7569
C7555
R7551
R7585
C7558
R7559
R7558
C7556
1
5
10
1
5
7
14
10
8
IC7553
MN4066B
C7559
C7560
R7560
IC7551
AN5034
R7586
R7584
R7589
R7568
R7561
20
15
11
R7583
R7582
R7590
C7561
C7553
R7562
9
5
1
IC7552
AN6913
C7565
R7563
QR7551
E C B
QR7558
QR7556
R7581
R7580
E C B
E C B
E C B
R7565
QR7555
C7564
QR7557
QR7561
E C B
E C B
P7554
1
4
D7559
R7570
D7560
D7558
R7599
E C B
P7557
QR7553
1
5
E C B
C7567
QR7554
C7566
P7555
P7556
1
5
8
1
6

Next Page:
CH SELECT Section

3-35. CH SELECT SCHEMATIC DIAGRAM (NV-G21B/EO/EV)

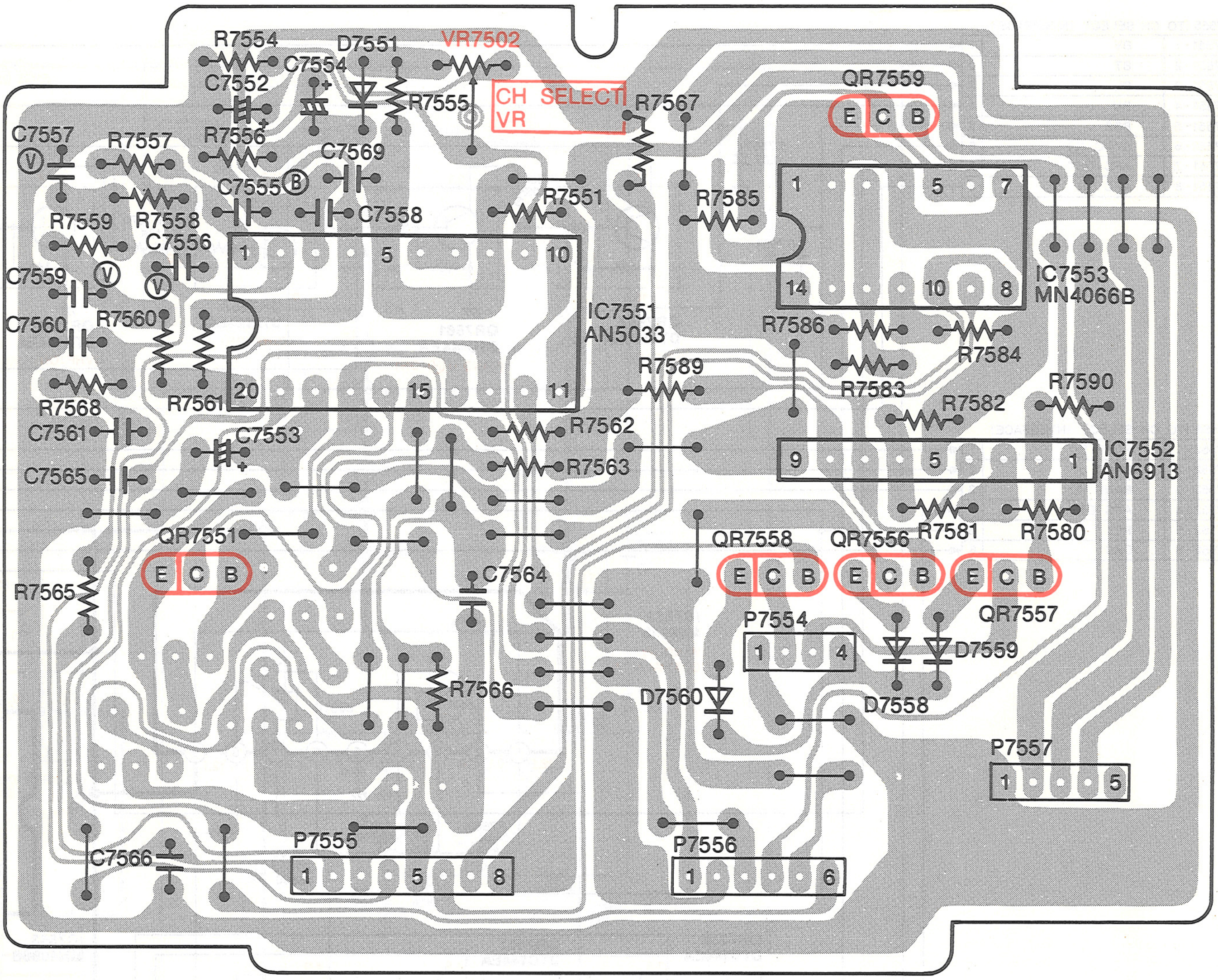


P7555 (TO CH SELECT INTERFACE)
P7551-1 BV 1
P7551-2 BT 2
P7551-3 BL 3
P7551-4 BU 4
P7551-5 BS2 5
P7551-6 — 6
P7551-7 AFC OUT 7
P7551-8 AFC IN 8
P7556 (TO CH SELECT INTERFACE)
P7552-1 PCLR Ⓗ 1
P7552-2 BAND U 2
P7552-3 BAND VL 3
P7552-4 AFC DEF 4
P7552-5 P53 5
P7552-6 DAC 6
C7564 0.01
R7566 330K
QR7551 DTC144EA
(BAND U Ⓗ:ON)
C7565 0.01
C7566 0.01
R7562 3300
R7551 100K
C7569 0.01
IC7551 AN5033
CR
RST
BV
BK
BS
U
VL
12V
DAC
F OUT
PCLR
VR
5V
COM Ⓛ
COM Ⓗ
IVR
30V
GND
BT
F IN
C7555 0.027 Ⓑ
R7557 120K
IC7552 AN6913
(WINDOW COMPALATOR)
R7580
R7581 5600
10K : NV-G21EO/EV
12K : NV-G21B
R7582 6800
R7586 56K
R7584
39K : NV-G21EO/EV
33K : NV-G21B
R7583 47K
(AFC DEF: ON)
(AFC DEF: OFF)
IC7553 MN4066B
R7567 100K
R7565 1K
R7568 10K
C7556 0.082 Ⓥ
C7561 0.01
C7560 0.01
C7559 0.1 Ⓥ
C7557 0.068 Ⓥ
R7560 47K
R7559 47K
R7558 100K
R7561 22K
C7558 0.01
QR7558 DTC144EA
QR7557 DTC144EA
QR7556 DTC144EA
(SW)
D7560 MA165
D7559 MA165
D7558 MA165
R7589 3300
R7590 3300
C7553 16V10
R7585 47K
QR7559 DTC144EA
(AFC DEF Ⓗ:ON)
C7552 50V1
R7555 1K
R7554 1K
VR7502 10KB
CH SELECT VR
D7551 MA165
C7554 35V22
R7556 47K
P7557 (TO CH SELECT INTERFACE)
1 GND P7553-1
2 REG 5V P7553-2
3 REG 12.3V P7553-3
4 REG 30V P7553-4
P7554 (TO TIMER)
1 P51 P7504-1
2 P52 P7504-2
3 P33 P7504-3

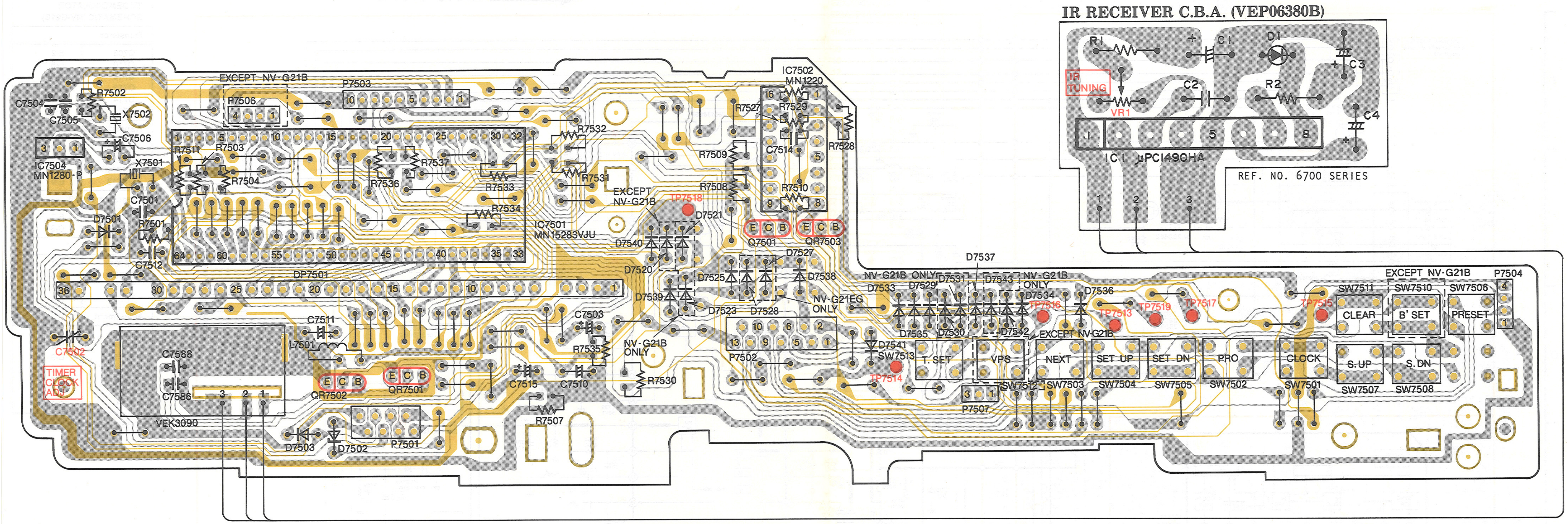
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

3-36. CH SELECT C.B.A. (VEP07395B: NV-G21B) (VEP07395C: NV-G21EO/EV)


R7554
D7551
VR7502
C7554
C7552
R7555
CH SELECT VR
R7567
QR7559
C7557
R7557
R7556
C7569
C7555
R7551
R7585
R7559
R7558
C7558
C7556
C7559
C7560
R7560
IC7551
AN5033
IC7553
MN4066B
R7586
R7584
R7583
R7589
R7590
R7568
R7561
R7582
C7561
C7553
R7562
R7563
C7565
IC7552
AN6913
QR7551
R7581
R7580
QR7558
QR7556
QR7557
C7564
R7565
P7554
D7559
R7566
D7560
D7558
P7557
C7566
P7555
P7556
E C B

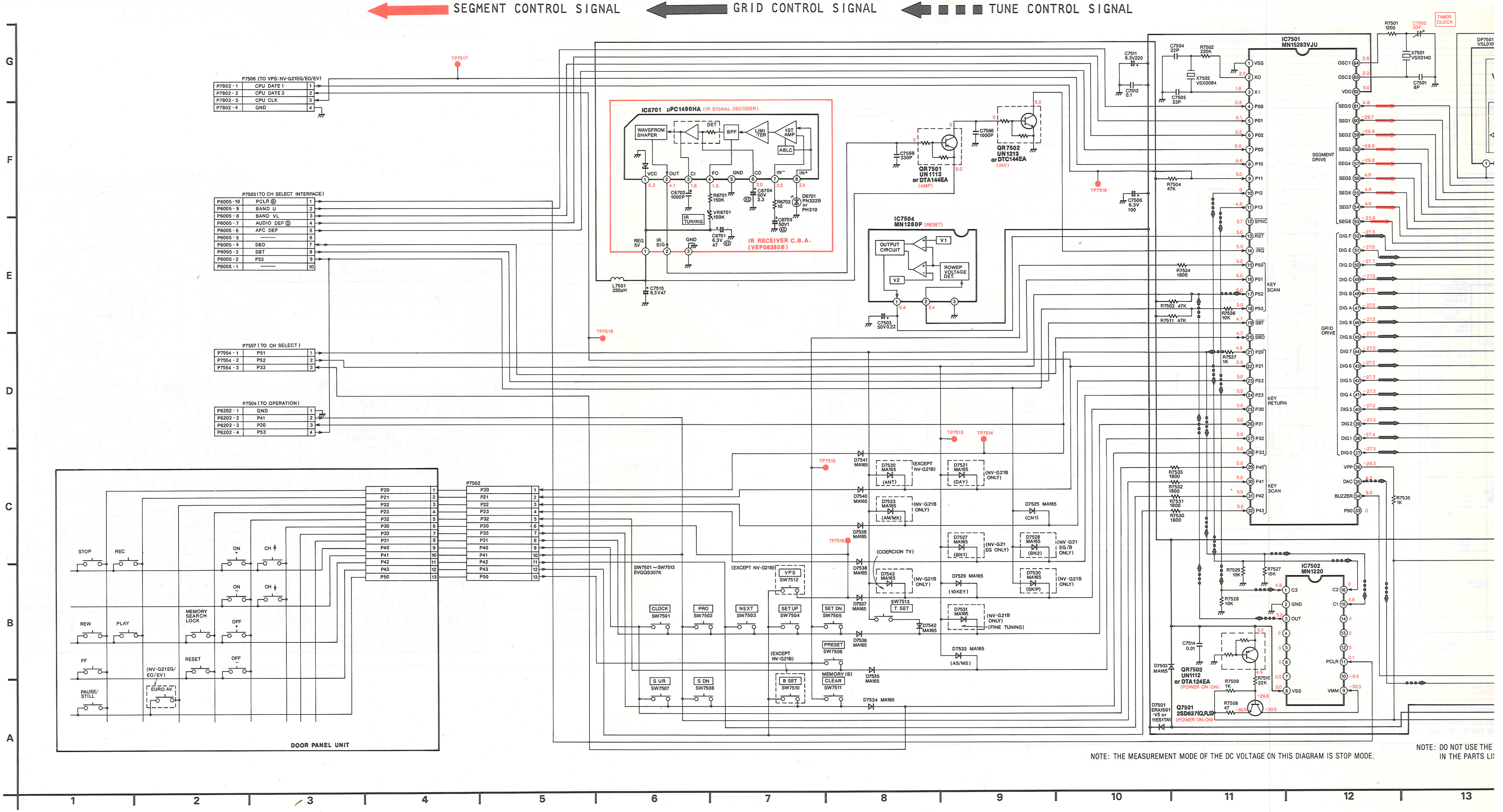
3-37. TIMER C.B.A. (VEP07394A: NV-G21EG) (VEP07394B: NV-G21B) (VEP07394C: NV-G21EO/EV)


IR RECEIVER C.B.A. (VEP06380B)
R1
C1
D1
C3
IR TUNING
VR1
C2
R2
C4
IC1 μPC1490HA
REF. NO. 6700 SERIES
1
2
3
5
8
EXCEPT NV-G21B
P7503
P7506
IC7502
MN1220
R7502
C7504
C7505
X7502
C7506
IC7504
MN1280-P
X7501
C7501
R7511
R7503
R7504
R7536
R7537
R7533
R7534
R7532
R7531
R7527
R7529
R7528
R7509
C7514
R7508
R7510
EXCEPT NV-G21B
TP7518
D7521
IC7501
MN15283VJU
D7501
R7501
C7512
D7540
Q7501
QR7503
D7527
D7537
D7520
D7525
D7538
DP7501
D7539
NV-G21B ONLY
D7533
D7529
D7531
D7543
NV-G21B ONLY
D7534
NV-G21EG ONLY
D7536
TP7516
TP7513
TP7519
TP7517
TP7515
EXCEPT NV-G21B
P7504
SW7511
SW7510
SW7506
CLEAR
B' SET
PRESET
C7502
TIMER CLOCK ADJ
C7588
C7586
VEK3090
C7511
L7501
C7503
R7535
NV-G21B ONLY
R7530
D7523
D7528
P7502
D7535
D7530
D7542
EXCEPT NV-G21B
D7541
SW7513
TP7514
T. SET
VPS
NEXT
SET UP
SET DN
PRO
CLOCK
S. UP
S. DN
SW7512
SW7503
SW7504
SW7505
SW7502
SW7501
SW7507
SW7508
P7507
QR7502
QR7501
C7515
C7510
R7507
D7503
D7502
P7501
E C B

TIMER SCHEMATIC	
Transistor	
Q7501	A-11
Transistor & Resistor	
QR7501 QR7502 QR7503	F-8 F-9 B-11
Integrated Circuit	
IC6701 IC7501 IC7502 IC7504	F-6 G-12 B-12 E-8
Test Point	
TP7513 TP7514 TP7515 TP7516 TP7517 TP7518	D-9 D-9 C-8 C-8 G-4 D-6
Adjustment	
C7502 VR6701	G-13 F-6
Connector	
P7501 P7502 P7503 P7504 P7506 P7507	A-16 C-4 F-3 D-3 G-3 D-3

ADDRESS INFORMATION

-38. TIMER SCHEMATIC DIAGRAM


SEGMENT CONTROL SIGNAL
GRID CONTROL SIGNAL
TUNE CONTROL SIGNAL
P7506 (TO VPS: NV-G21EG/EO/EV)
P7802-1 CPU DATE 1
P7802-2 CPU DATE 2
P7802-3 CPU CLK
P7802-4 GND
TP7517
IC6701 μPC1490HA (IR SIGNAL DECODER)
WAVEFROM SHAPER
DET
BPF
LIMI TER
1ST AMP
ABLC
VCC
OUT
CI
FO
GND
CD
IN⁻
IN⁺
C6702 1000P
R6701 150K
VR6701 100K
IR TUNING
C6704 50V 3.3
R6702 10
D6701 PN322B or PH310
C6703 50V1
C6701 6.3V 47
REG 5V
IR. SIG
GND
IR RECEIVER C.B.A. (VEP06380B)
L7501 220μH
C7515 6.3V47
P7503 (TO CH SELECT INTERFACE)
P6005-10 PCLR Ⓡ
P6005-9 BAND U
P6005-8 BAND VL
P6005-7 AUDIO DEF Ⓢ
P6005-6 AFC DEF
P6005-5 ——
P6005-4 SBD
P6005-3 SBT
P6005-2 P53
P6005-1 ——
TP7518
P7507 (TO CH SELECT)
P7554-1 P51
P7554-2 P52
P7554-3 P33
P7504 (TO OPERATION)
P6202-1 GND
P6202-2 P41
P6202-3 P20
P6202-4 P53
QR7501 UN1113 or DTA144EA (AMP)
C7588 330P
C7586 1000P
QR7502 UN1213 or DTC144EA (INV)
TP7519
IC7504 MN1280P (RESET)
OUTPUT CIRCUIT
V1
V2
ROWEP VOLTAGE DET.
C7503 50V0.22
C7511 6.3V220
C7512 0.1
C7504 22P
R7502 220K
X7502 VSX0094
C7505 33P
C7506 6.3V 100
R7504 47K
R7534 1800
R7503 47K
R7511 47K
R7536 10K
R7537 1K
IC7501 MN15283VJU
VSS
XO
XI
P00
P01
P02
P03
P10
P11
P12
P13
SYNC
RST
IRQ
P50
P51
P52
P53
SBT
SBD
P20
P21
P22
P23
P30
P31
P32
P33
P40
P41
P42
P43
OSC1
OSC2
VDD
SEG0
SEG1
SEG2
SEG3
SEG4
SEG5
SEG6
SEG7
SEG8
SEGMENT DRIVE
DIG F
DIG E
DIG D
DIG C
DIG B
DIG A
DIG 9
DIG 8
DIG 7
DIG 6
DIG 5
DIG 4
DIG 3
DIG 2
DIG 1
DIG 0
GRID DRIVE
KEY SCAN
KEY RETURN
VPP
DAC
BUZZER
P60
R7535 1K
R7501 1200
C7502 30P
TIMER CLOCK
X7501 VSX0140
C7501 8P
DP7501 VGL010
R7533 1800
R7532 1800
R7531 1800
R7530 1800
TP7513
TP7514
TP7515
TP7516
D7541 MA165
D7540 MA165
D7539 MA165
D7538 MA165
D7537 MA165
D7536 MA165
D7520 MA165 (EXCEPT NV-G21B) (ANT)
D7521 MA165 (NV-G21B ONLY) (DAY)
D7523 MA165 (NV-G21B ONLY) (AM/MK)
D7525 MA165 (CN1)
D7527 MA165 (NV-G21 EG ONLY) (BN1)
D7528 MA165 (NV-G21 EG/B ONLY) (BN2)
(COERCION TV)
D7543 MA165 (NV-G21B ONLY)
D7529 MA165 (10KEY)
D7530 MA165 (NV-G21B ONLY) (SKIP)
D7531 MA165 (NV-G21B ONLY) (FINE TUNING)
D7542 MA165
D7533 MA165 (AS/MS)
D7535 MA165
D7534 MA165
SW7501 ~ SW7513 EVQQS307K
(EXCEPT NV-G21B)
VPS SW7512
SW7513 T SET
CLOCK SW7501
PRO SW7502
NEXT SW7503
SET UP SW7504
SET DN SW7505
PRESET SW7506
S UR SW7507
S DN SW7508
(EXCEPT NV-G21B)
B SET SW7510
MEMORY (B) CLEAR SW7511
P7502
P20
P21
P22
P23
P32
P30
P33
P31
P40
P41
P42
P43
P50
STOP
REC
ON +
CH ⇞
ON –
CH ⇟
REW
PLAY
MEMORY SEARCH LOCK
OFF +
FF
RESET
OFF –
(NV-G21EG/ EO/EV)
EURO AV
PAUSE/ STILL
DOOR PANEL UNIT
IC7502 MN1220
C3
GND
OUT
C2
C1
PCLR
VSS
VMM
R7529 10K
R7527 10K
R7528 10K
C7514 0.01
D7503 MA165
QR7503 UN1112 or DTA124EA (POWER ON:ON)
R7509 1K
R7510 22K
R7508 47
D7501 ERA1501-V5 or 11ES1TA1
Q7501 2SD637(Q,R,S) (POWER ON:ON)
G
F
E
D
C
B
A
1
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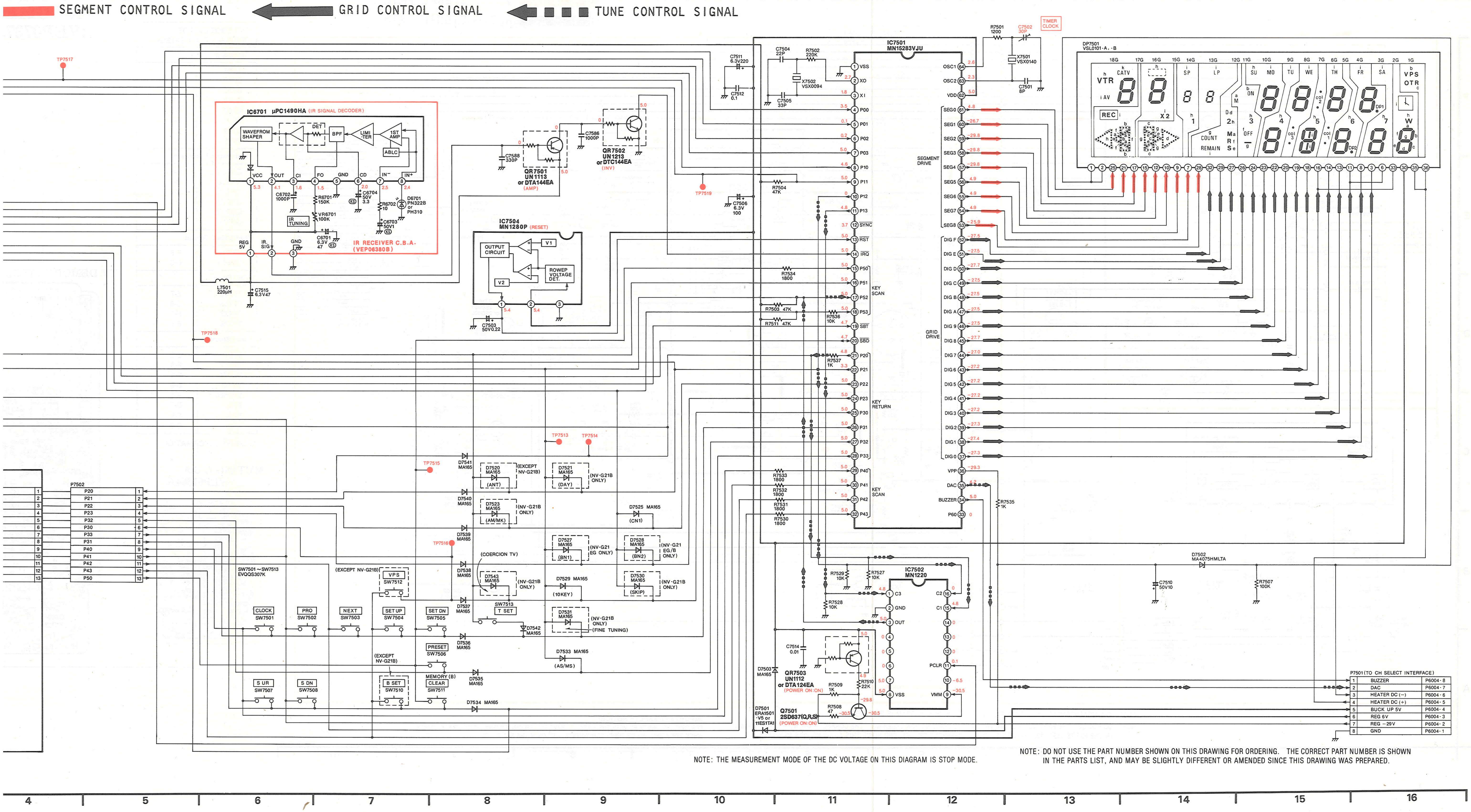
13

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE THE
IN THE PARTS LI


SEGMENT CONTROL SIGNAL
GRID CONTROL SIGNAL
TUNE CONTROL SIGNAL
TIMER CLOCK
IC7501 MN15283VJU
IC6701 μPC1490HA (IR SIGNAL DECODER)
WAVEFROM SHAPER
DET
BPF
LIMITER
1ST AMP
ABLC
IR TUNING
IR RECEIVER C.B.A. (VEP06380B)
IC7504 MN1280P (RESET)
OUTPUT CIRCUIT
ROWEP VOLTAGE DET.
QR7501 UN1113 or DTA144EA (AMP)
QR7502 UN1213 or DTC144EA (INV)
IC7502 MN1220
QR7503 UN1112 or DTA124EA (POWER ON:ON)
Q7501 2SD637(Q,R,S) (POWER ON:ON)
DP7501 VSL0101-A, -B
SEGMENT DRIVE
GRID DRIVE
KEY SCAN
KEY RETURN
TP7517
TP7518
TP7519
TP7513
TP7514
TP7515
TP7516
P7502
SW7501~SW7513 EVQQS307K
CLOCK
PRO
NEXT
SET UP
SET DN
T SET
VPS
PRESET
MEMORY (B) CLEAR
B SET
S UP
S DN
D7502 MA4075HMLTA
P7501(TO CH SELECT INTERFACE)
1 BUZZER P6004-8
2 DAC P6004-7
3 HEATER DC (−) P6004-6
4 HEATER DC (+) P6004-5
5 BUCK UP 5V P6004-4
6 REG 6V P6004-3
7 REG −29V P6004-2
8 GND P6004-1
4
5
6
7
8
9
10
11
12
13
14
15
16

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

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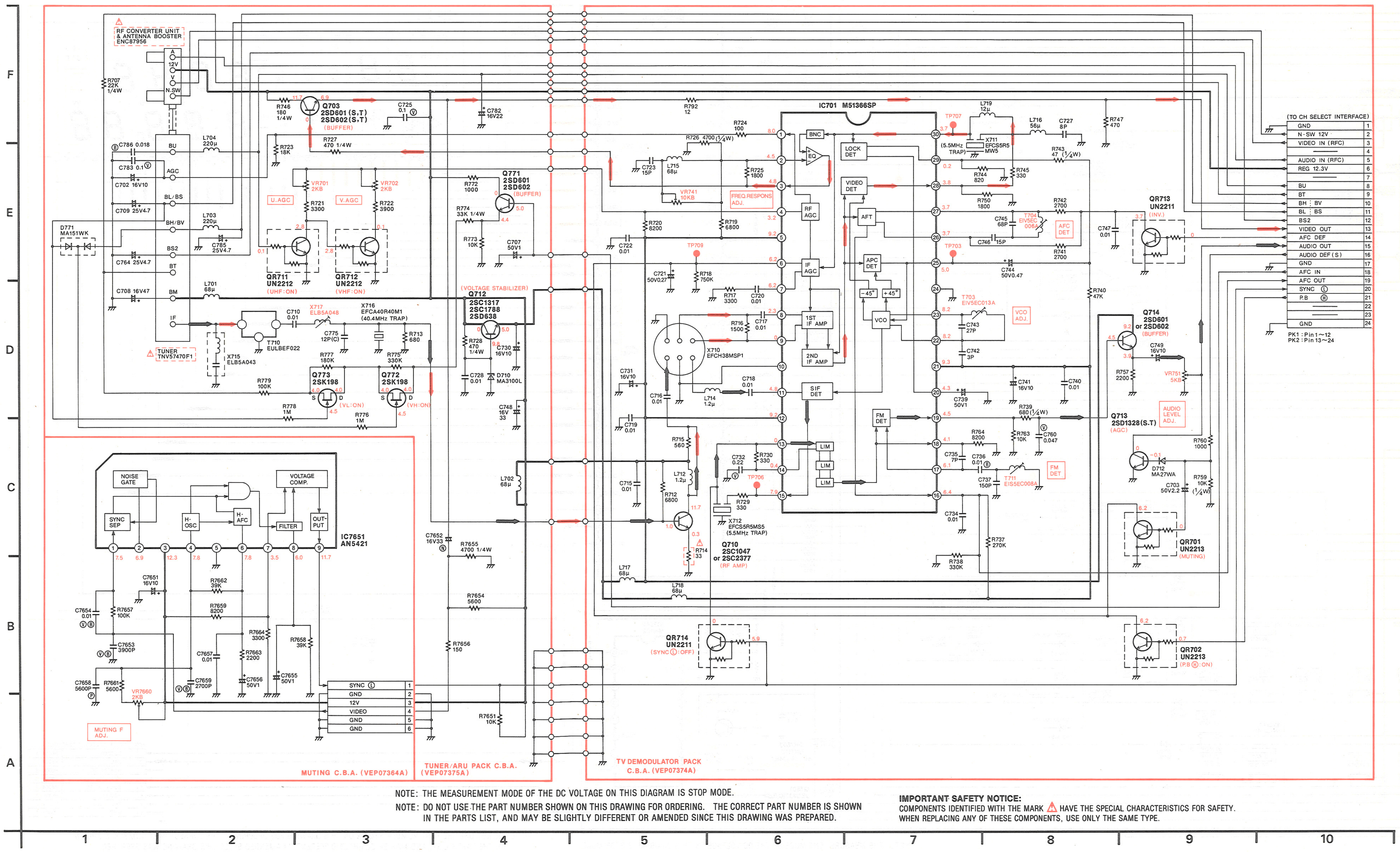
Next Page:
TV DEMODULATOR Section

3-39. TV DEMODULATOR PACK & TUNER/ARU PACK SCHEMATIC DIAGRAM (NV-G21EG)

VIDEO SIGNAL PATH

AUDIO SIGNAL PATH


RF CONVERTER UNIT & ANTENNA BOOSTER ENC87956
TUNER TNV57470F1
D771 MA151WK
Q703 2SD601 (S.T) 2SD602 (S.T) (BUFFER)
Q771 2SD601 2SD602 (BUFFER)
QR711 UN2212 (UHF:ON)
QR712 UN2212 (VHF:ON)
Q712 2SC1317 2SC1788 2SD638 (VOLTAGE STABILIZER)
Q773 2SK198 (VL:ON)
Q772 2SK198 (VH:ON)
X716 EFCA40R40M1 (40.4MHz TRAP)
X715 ELB5A043
X717 ELB5A048
T710 EULBEF022
IC701 M51366SP
BNC
EQ
RF AGC
IF AGC
LOCK DET
VIDEO DET
AFT
APC DET
VCO
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
X710 EFCH38MSP1
X711 EFCS5R5MW5 (5.5MHz TRAP)
X712 EFCS5R5MS5 (5.5MHz TRAP)
Q710 2SC1047 or 2SC2377 (RF AMP)
QR713 UN2211 (INV.)
Q714 2SD601 or 2SD602 (BUFFER)
Q713 2SD1328(S.T) (AGC)
QR701 UN2213 (MUTING)
QR702 UN2213 (P.B Ⓡ:ON)
QR714 UN2211 (SYNC Ⓛ:OFF)
D712 MA27WA
T703 EIVSEC013A
T704 EIVSEC008
T711 EIISEC008A
VR701 U.AGC
VR702 V.AGC
VR741 FREQ.RESPONS ADJ.
VR751 AUDIO LEVEL ADJ.
VCO ADJ.
AFC DET
TP703
TP706
TP707
TP709
(TO CH SELECT INTERFACE)
GND
N·SW 12V
VIDEO IN (RFC)
AUDIO IN (RFC)
REG 12.3V
BU
BT
BH : BV
BL : BS
BS2
VIDEO OUT
AFC DEF
AUDIO OUT
AUDIO DEF (S)
AFC IN
AFC OUT
SYNC Ⓛ
P.B Ⓡ
PK1 : Pin 1~12
PK2 : Pin 13~24
IC7651 AN5421
NOISE GATE
SYNC SEP
H-OSC
H-AFC
VOLTAGE COMP.
FILTER
OUT-PUT
VR7660 2KB
MUTING F ADJ.
SYNC Ⓛ
GND
12V
VIDEO
GND
GND
MUTING C.B.A. (VEP07364A)
TUNER/ARU PACK C.B.A. (VEP07375A)
TV DEMODULATOR PACK C.B.A. (VEP07374A)
F
E
D
C
B
A
1
2
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4
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6
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8
9
10

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

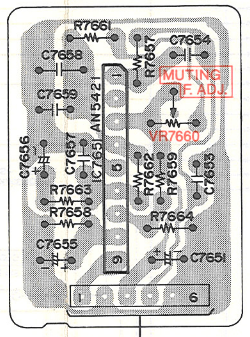
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

TV DEMODULATOR SCHEMATIC (NV-G21EG)	
Transistor	
Q703	F-3
Q710	C-6
Q712	D-4
Q713	C-9
Q714	D-9
Q771	E-4
Q772	D-3
Q773	D-3
Transistor & Resistor	
QR701	C-9
QR702	B-9
QR711	D-2
QR712	D-3
QR713	E-9
QR714	B-5
Integrated Circuit	
IC701	F-6
IC7651	C-3
Test Point	
TP703	E-7
TP706	C-6
TP707	F-7
TP709	E-5
Adjustment	
VR701	E-3
VR702	E-3
VR741	E-5
VR751	D-9
VR7660	A-1
T703	D-7
T704	E-8
T711	C-8

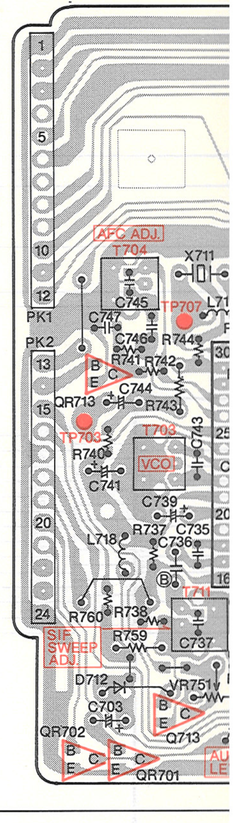
ADDRESS INFORMATION

MUTING C.B.A.
(VEP07364A)

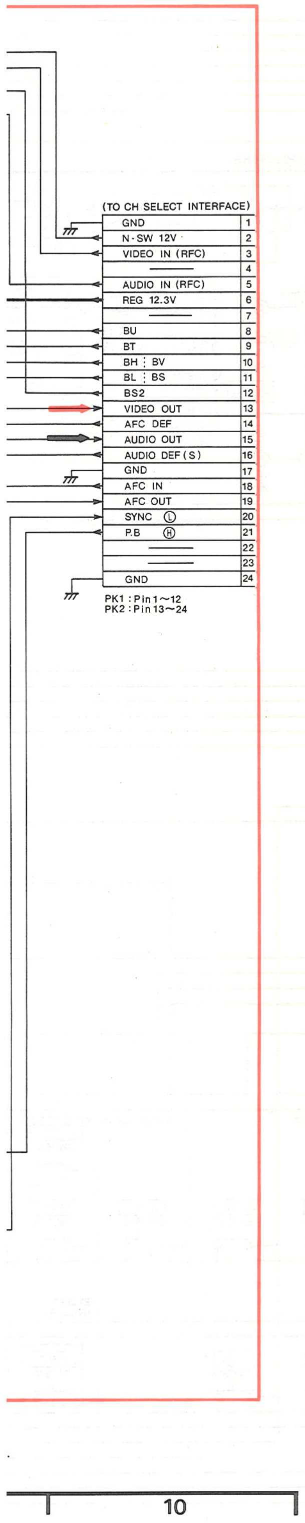

R7661
C7658
R7657
C7654
C7659
IC7651 AN5421
MUTING F. ADJ.
VR7660
C7656
R7663
R7658
R7662
R7659
C7653
R7664
C7655
C7651

3-40. TV DEMC
NV-G21EC
(VEP07375

TV DEMODULATOR F


AFC ADJ.
T704
X711
TP707
PK1
PK2
C747
C745
C746
R744
R741
R742
C744
QR713
R743
TP703
T703
R740
VCO
C741
C739
R737
C735
L718
C736
R760
R738
SIF SWEEP ADJ.
R759
C737
D712
C703
VR751
QR702
Q713
QR701
T711
1
5
10
12
13
15
20
24

PATH
PATH


(TO CH SELECT INTERFACE)
GND 1
N·SW 12V 2
VIDEO IN (RFC) 3
4
AUDIO IN (RFC) 5
REG 12.3V 6
7
BU 8
BT 9
BH ⁝ BV 10
BL ⁝ BS 11
BS2 12
VIDEO OUT 13
AFC DEF 14
AUDIO OUT 15
AUDIO DEF (S) 16
GND 17
AFC IN 18
AFC OUT 19
SYNC Ⓛ 20
P.B Ⓗ 21
22
23
GND 24
PK1 : Pin 1~12
PK2 : Pin 13~24
10

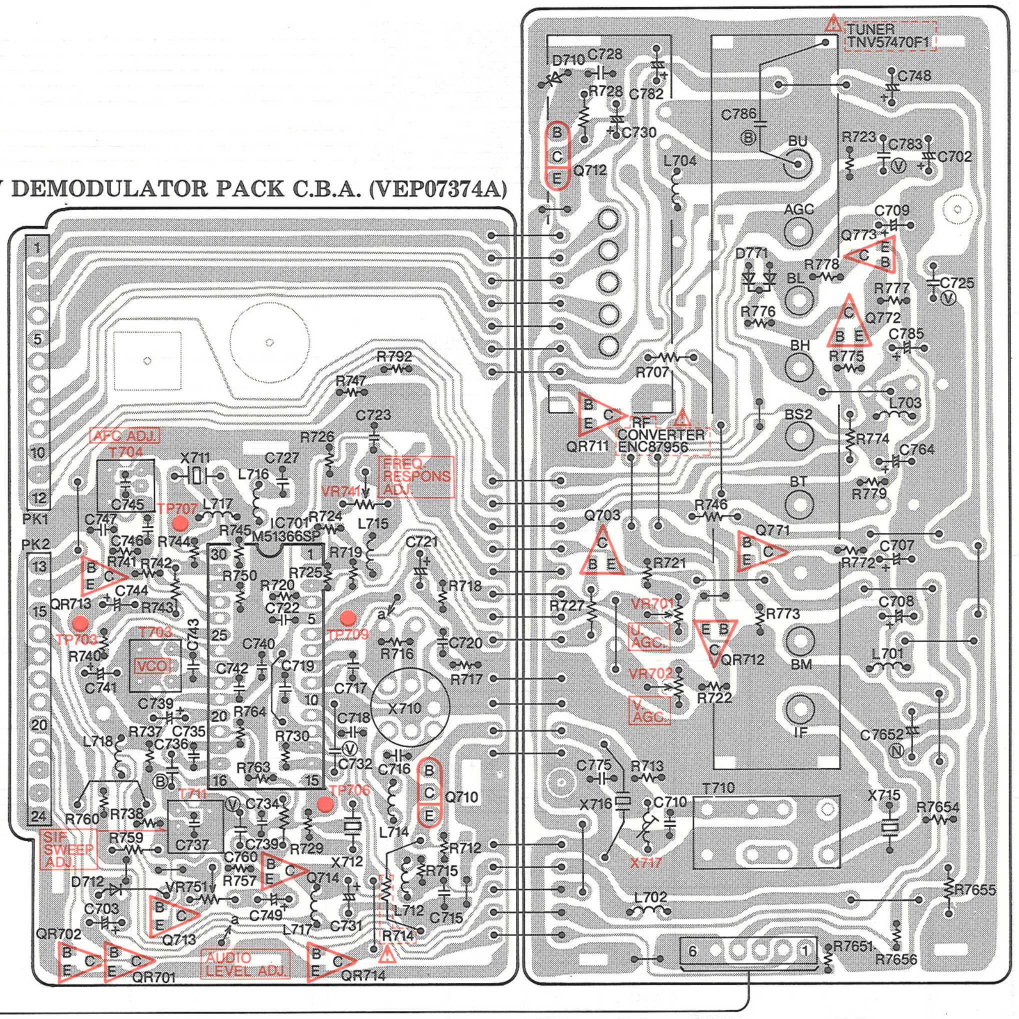
3-40. TV DEMODULATOR PACK C.B.A. (VEP07374A: NV-G21EG) & TUNER/ARU PACK C.B.A. (VEP07375A: NV-G21EG)

TV DEMODULATOR SCHEMATIC (NV-G21EG)	
Transistor	
Q703	F-3
Q710	C-6
Q712	D-4
Q713	C-9
Q714	D-9
Q771	E-4
Q772	D-3
Q773	D-3
Transistor & Resistor	
QR701	C-9
QR702	B-9
QR711	D-2
QR712	D-3
QR713	E-9
QR714	B-5
Integrated Circuit	
IC701	F-6
IC7651	C-3
Test Point	
TP703	E-7
TP706	C-6
TP707	F-7
TP709	E-5
Adjustment	
VR701	E-3
VR702	E-3
VR741	E-5
VR751	D-9
VR7660	A-1
T703	D-7
T704	E-8
T711	C-8

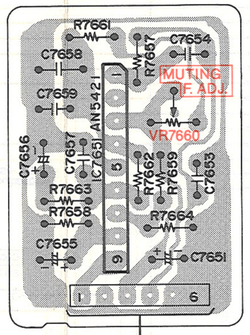
ADDRESS INFORMATION

TUNER/ARU PACK C.B.A. (VEP07375A)

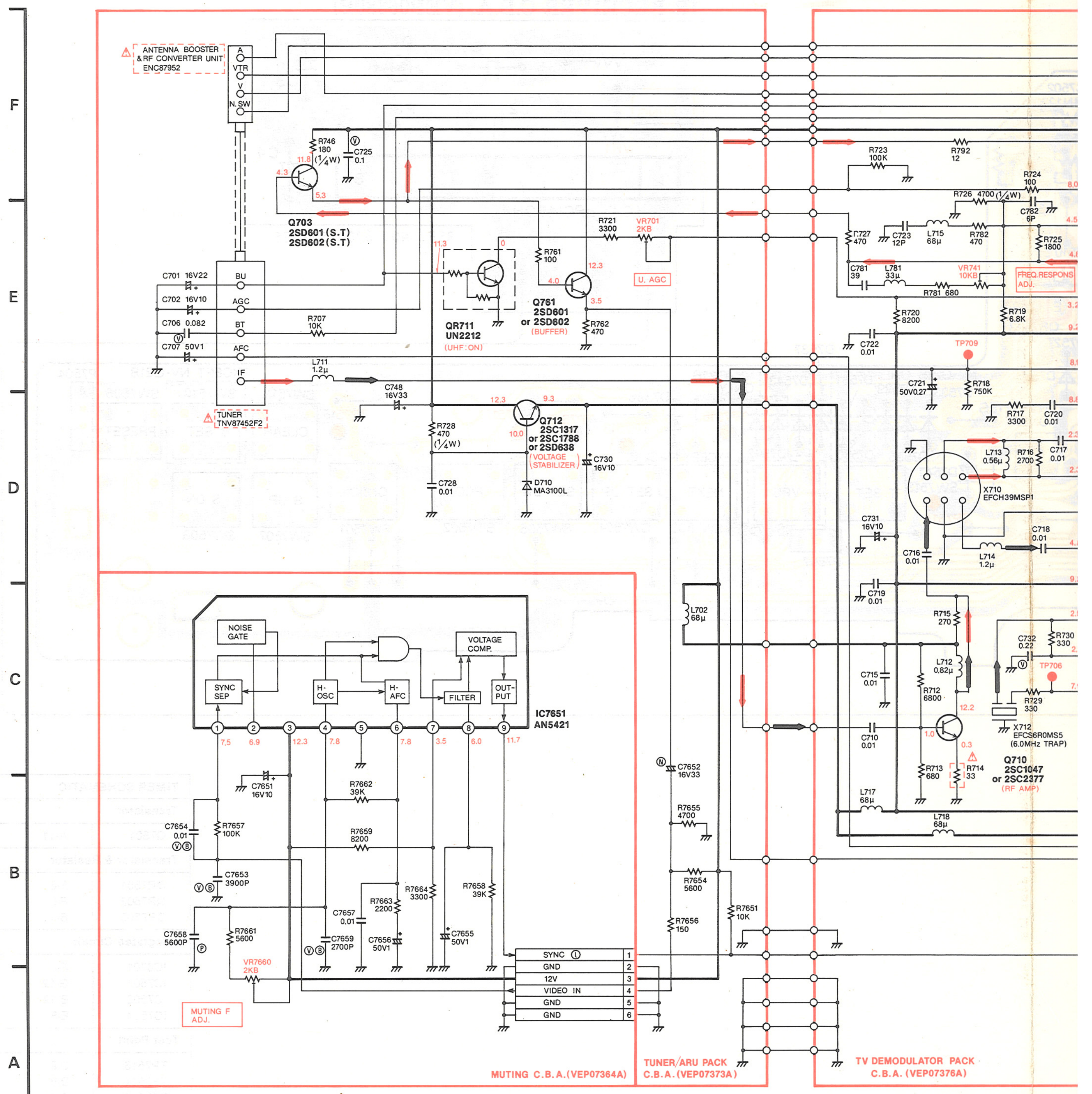
TV DEMODULATOR PACK C.B.A. (VEP07374A)


TUNER TNV57470F1
AFC ADJ.
T704
FREQ. RESPONS ADJ.
VR741
TP707
IC701 M51366SP
TP703
T703
VCO
TP709
VR701
U AGC
VR702
V AGC
RF CONVERTER ENC87956
QR711
X710
T711
TP706
X717
SIF SWEEP ADJ.
AUDIO LEVEL ADJ.
VR751
QR701
QR702
QR714
Q713
Q714
Q710
Q703
Q771
Q772
Q773
QR712
T710
PK1
PK2
BU
AGC
BL
BH
BS2
BT
BM
IF

MUTING C.B.A. (VEP07364A)


R7661
C7654
C7658
C7659
MUTING F. ADJ.
VR7660
IC7651 AN5421
C7656
C7657
R7657
R7659
C7653
R7663
R7658
R7664
C7655
C7651

3-41. TV DEMODULATOR PACK & TUNER/ARU PACK SCHEMATIC DIA

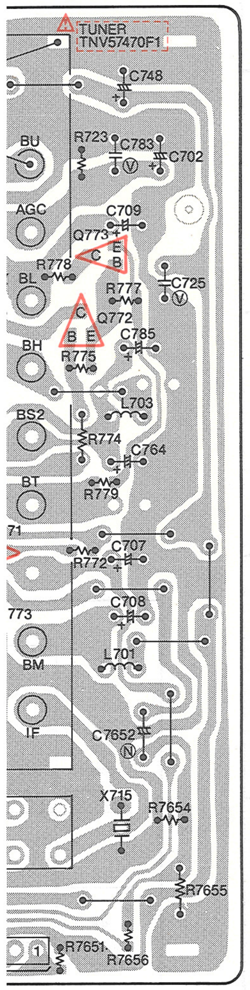

ANTENNA BOOSTER & RF CONVERTER UNIT ENC87952
TUNER TNV87452F2
Q703 2SD601(S.T) 2SD602(S.T)
QR711 UN2212 (UHF:ON)
Q781 2SD601 or 2SD602 (BUFFER)
U. AGC
Q712 2SC1317 or 2SC1788 or 2SD638 (VOLTAGE STABILIZER)
D710 MA3100L
X710 EFCH39MSP1
FREQ RESPONS ADJ.
TP709
TP706
X712 EFCS6R0MS5 (6.0MHz TRAP)
Q710 2SC1047 or 2SC2377 (RF AMP)
NOISE GATE
SYNC SEP
H-OSC
H-AFC
VOLTAGE COMP.
FILTER
OUT-PUT
IC7651 AN5421
MUTING F ADJ.
VR7660 2KB
SYNC Ⓛ 1
GND 2
12V 3
VIDEO IN 4
GND 5
GND 6
MUTING C.B.A.(VEP07364A)
TUNER/ARU PACK C.B.A.(VEP07373A)
TV DEMODULATOR PACK C.B.A.(VEP07376A)
F
E
D
C
B
A
1
2
3
4
5

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

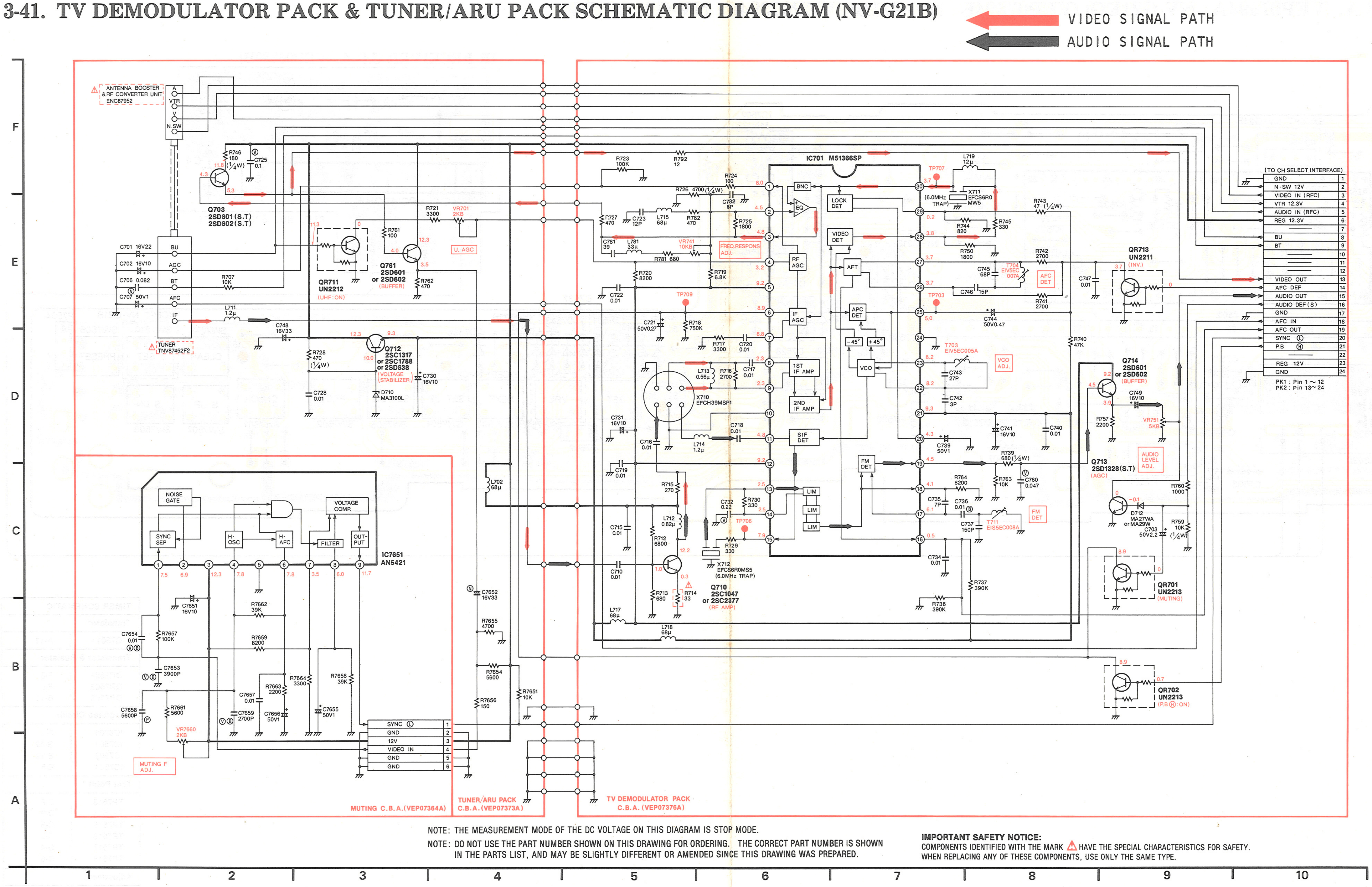
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CO
IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS

P07374A:
A.

.B.A. (VEP07375A)


TUNER
TNV57470F1
C748
BU
R723
C783
C702
AGC
C709
Q773
R778
BL
R777
C725
Q772
BH
R775
C785
BS2
L703
R774
C764
BT
R779
C707
R772
773
C708
BM
L701
IF
C7652
X715
R7654
R7655
R7651
R7656

3-41. TV DEMODULATOR PACK & TUNER/ARU PACK SCHEMATIC DIAGRAM (NV-G21B)


VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
ANTENNA BOOSTER & RF CONVERTER UNIT ENC87952
VTR
N.SW
Q703 2SD601 (S.T) 2SD602 (S.T)
QR711 UN2212 (UHF:ON)
Q761 2SD601 or 2SD602 (BUFFER)
VR701 2KB
U. AGC
TUNER TNV87452F2
Q712 2SC1317 or 2SC1788 or 2SD638 (VOLTAGE STABILIZER)
D710 MA3100L
IC701 M51366SP
TP707
TP709
TP703
TP706
FREQ.RESPONS ADJ.
VR741 10KB
X711 EFCS6R0MW5 (6.0MHz TRAP)
X710 EFCH39MSP1
X712 EFCS6R0MS5 (6.0MHz TRAP)
Q710 2SC1047 or 2SC2377 (RF AMP)
T703 EIV5EC005A
T704 EIV5EC007B
T711 EIS5EC008A
AFC DET
VCO ADJ.
FM DET
BNC
EQ
LOCK DET
VIDEO DET
RF AGC
AFT
APC DET
IF AGC
VCO
1ST IF AMP
2ND IF AMP
SIF DET
LIM
QR713 UN2211 (INV.)
Q714 2SD601 or 2SD602 (BUFFER)
Q713 2SD1328(S.T) (AGC)
VR751 5KB
AUDIO LEVEL ADJ.
D712 MA27WA or MA29W
QR701 UN2213 (MUTING)
QR702 UN2213 (P.B Ⓡ: ON)
(TO CH SELECT INTERFACE)
GND
N-SW 12V
VIDEO IN (RFC)
VTR 12.3V
AUDIO IN (RFC)
REG 12.3V
BU
BT
VIDEO OUT
AFC DEF
AUDIO OUT
AUDIO DEF (S)
GND
AFC IN
AFC OUT
SYNC Ⓣ
P.B Ⓡ
REG 12V
GND
PK1 : Pin 1～12
PK2 : Pin 13～24
NOISE GATE
VOLTAGE COMP.
SYNC SEP
H-OSC
H-AFC
FILTER
OUT-PUT
IC7651 AN5421
VR7660 2KB
MUTING F ADJ.
SYNC Ⓣ
GND
12V
VIDEO IN
GND
GND
L702 68μ
MUTING C.B.A.(VEP07364A)
TUNER/ARU PACK C.B.A. (VEP07373A)
TV DEMODULATOR PACK C.B.A. (VEP07376A)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

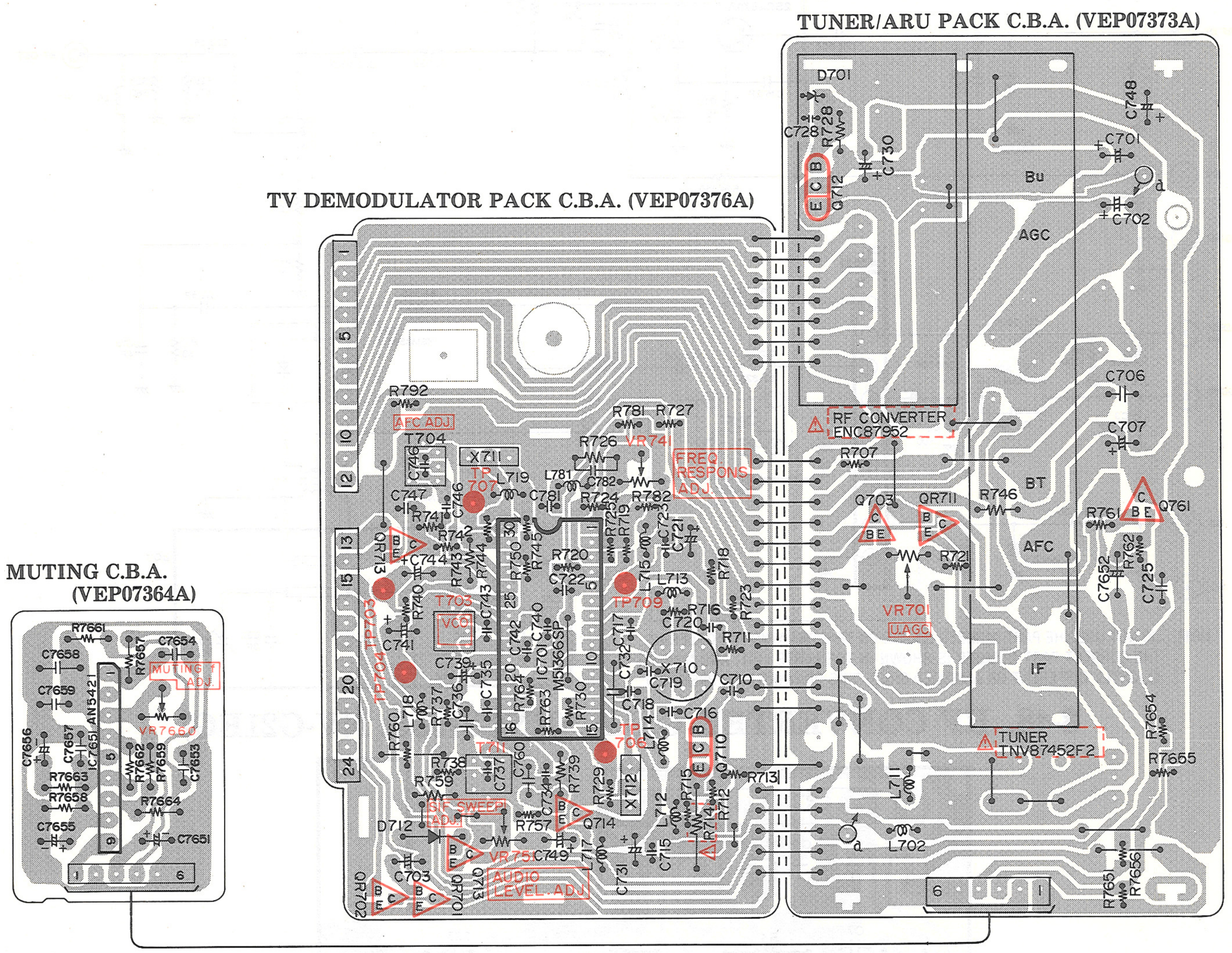
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

TV DEMODULATOR SCHEMATIC (NV-G21B)

Transistor	
Q703	E-2
Q710	C-6
Q712	D-3
Q713	C-9
Q714	D-9
Q761	E-3
Transistor & Resistor	
QR701	C-9
QR702	B-9
QR711	E-3
QR713	E-9
Integrated Circuit	
IC701	F-6
IC7651	C-3
Test Point	
TP703	E-7
TP706	C-6
TP707	F-7
TP709	E-5
Adjustment	
VR701	E-4
VR741	E-5
VR751	D-9
VR7660	A-2
T703	D-7
T704	E-8
T711	C-8

ADDRESS INFORMATION

3-42. TV DEMODULATOR PACK C.B.A. (VEP07376A: NV-G21B) & TUNER/ARU PACK C.B.A. (VEP07373A: NV-G21B)

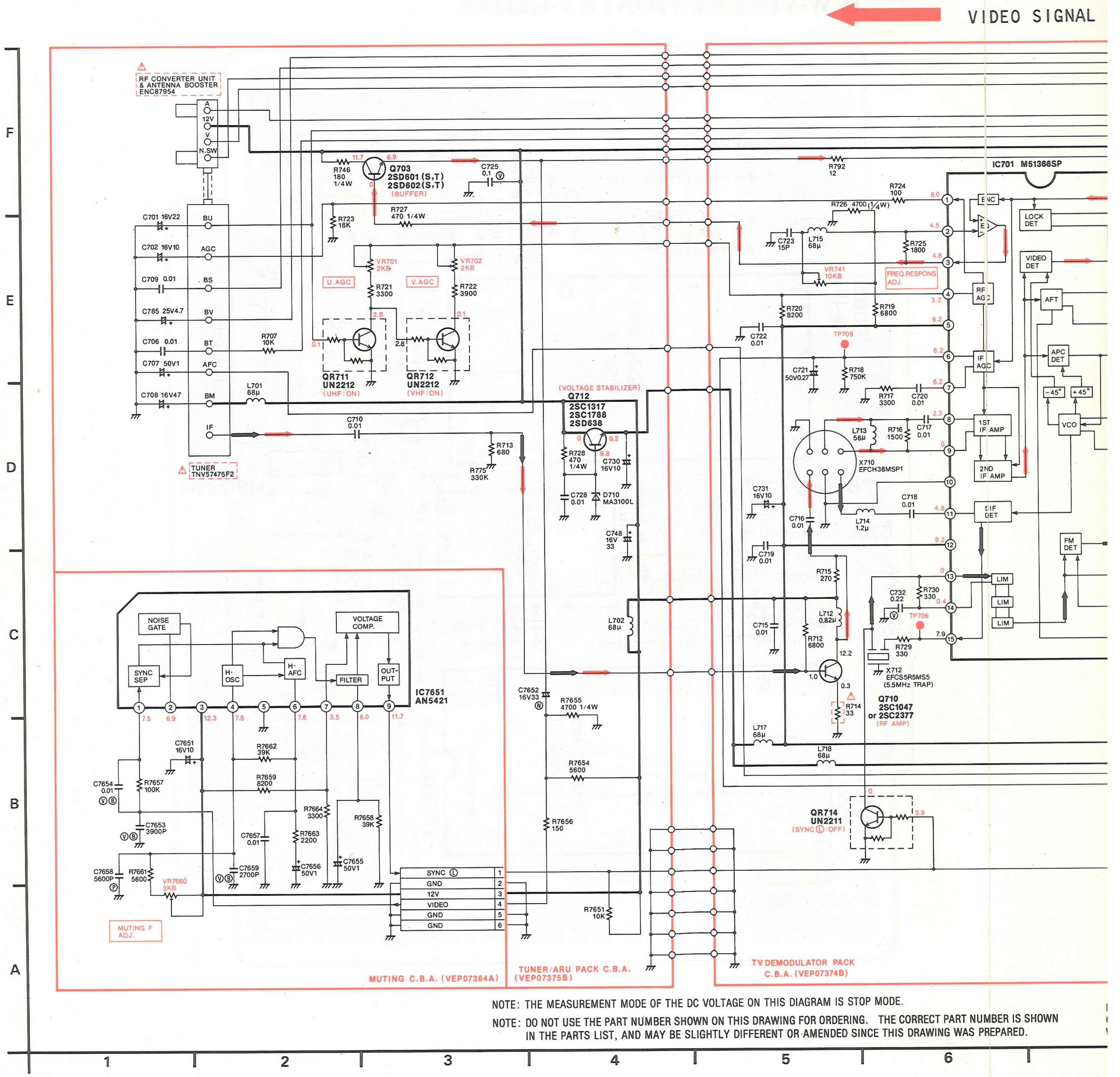

TUNER/ARU PACK C.B.A. (VEP07373A)

TV DEMODULATOR PACK C.B.A. (VEP07376A)

MUTING C.B.A. (VEP07364A)

D701
C728
R728
Q712
C730
C748
C701
C702
Bu
AGC
BT
AFC
IF
RF CONVERTER
ENC87952
TUNER
TNV87452F2
R792
AFC ADJ
T704
X711
R781
R727
R726
VR741
FREQ RESPONS ADJ
R707
Q703
QR711
R746
R761
Q761
C706
C707
R720
TP709
T703
VCO
TP706
VR701
U.AGC
C710
C725
C7652
R7654
R7655
R7656
RF SWEEP
VR7660
AUDIO LEVEL ADJ
D712
C703
QR702
R7661
C7654
C7658
C7659
C7656
C7657
AN5421
R7667
MUTING F ADJ
R7663
R7658
R7662
R7659
R7664
C7655
C7651
C7653

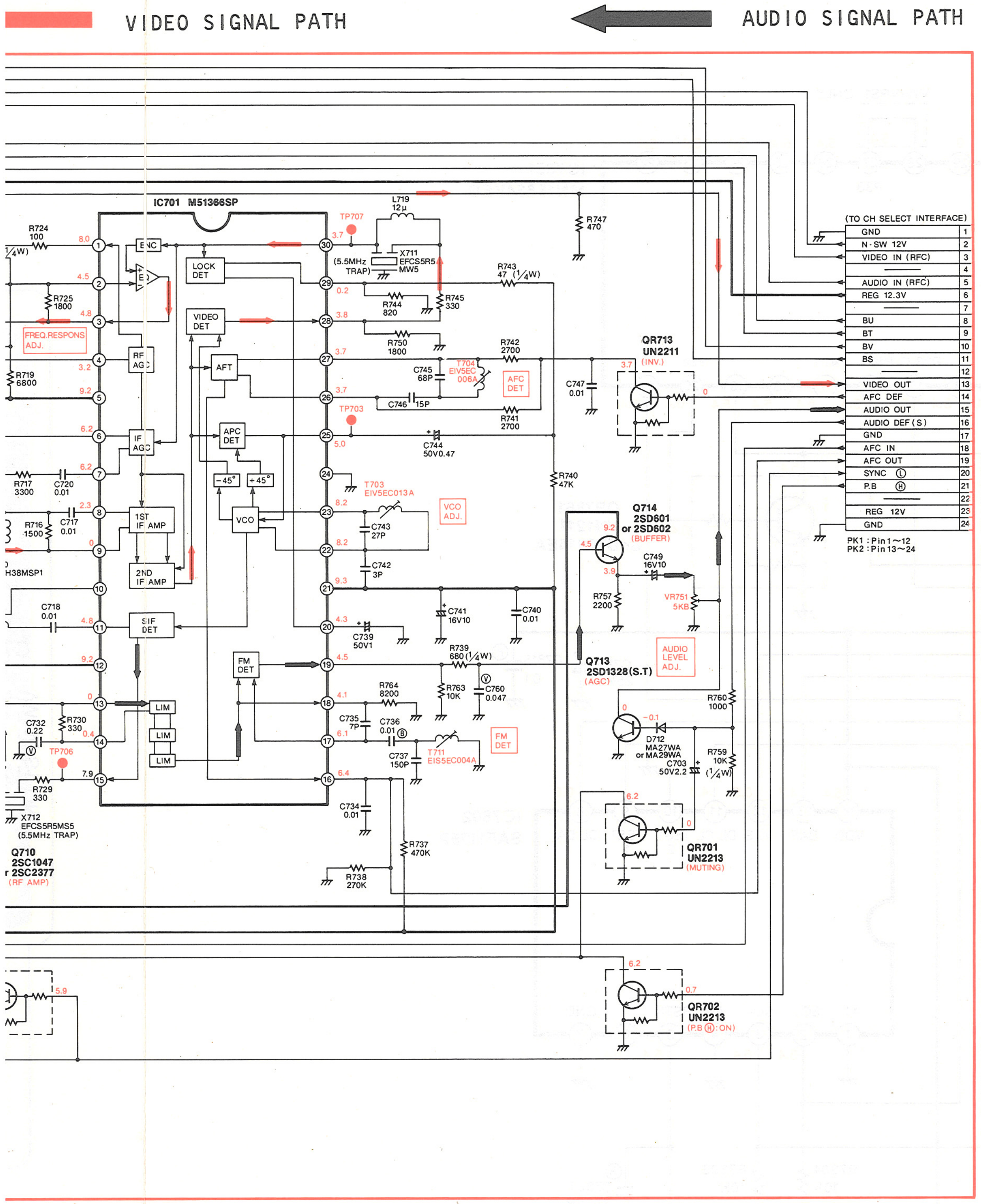
3-43. TV DEMODULATOR PACK & TUNER/ARU PACK SCHEMATIC DIAGRAM (NV-


VIDEO SIGNAL
RF CONVERTER UNIT & ANTENNA BOOSTER ENC87954
12V
N.SW
Q703 2SD601(S.T) 2SD602(S.T) (BUFFER)
R746 180 1/4W
R727 470 1/4W
C725 0.1
R723 18K
VR701 2KB
VR702 2KB
U.AGC
V.AGC
R721 3300
R722 3900
QR711 UN2212 (UHF:ON)
QR712 UN2212 (VHF:ON)
BU
AGC
BS
BV
BT
AFC
BM
IF
TUNER TNV57475F2
C701 16V22
C702 16V10
C709 0.01
C785 25V4.7
C706 0.01
C707 50V1
C708 16V47
R707 10K
L701 68µ
C710 0.01
R713 680
R775 330K
(VOLTAGE STABILIZER)
Q712 2SC1317 2SC1788 2SD638
R728 470 1/4W
C730 16V10
C728 0.01
D710 MA3100L
C748 16V 33
L702 68µ
C7652 16V33
R7655 4700 1/4W
R7654 5600
R7656 150
R7651 10K
IC701 M51366SP
R792 12
R724 100
R726 4700 (1/4W)
C723 15P
L715 68µ
R725 1800
VR741 10KB
FREQ.RESPONS ADJ.
R720 8200
R719 6800
C722 0.01
TP709
C721 50V0.27
R718 750K
R717 3300
C720 0.01
L713 56µ
R716 1500
C717 0.01
X710 EFCH38MSP1
C731 16V10
C716 0.01
L714 1.2µ
C718 0.01
C719 0.01
R715 270
C715 0.01
R712 6800
L712 0.82µ
C732 0.22
R730 330
TP706
R729 330
X712 EFCS5R5MS5 (5.5MHz TRAP)
Q710 2SC1047 or 2SC2377 (RF AMP)
R714 33
L717 68µ
L718 68µ
QR714 UN2211 (SYNC Ⓛ OFF)
LOCK DET
VIDEO DET
RF AGC
AFT
IF AGC
APC DET
-45°
+45°
VCO
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
NOISE GATE
VOLTAGE COMP.
SYNC SEP
H-OSC
H-AFC
FILTER
OUT-PUT
IC7651 AN5421
C7651 16V10
R7662 39K
R7659 8200
C7654 0.01
R7657 100K
C7653 3900P
R7664 3300
R7658 39K
C7657 0.01
R7663 2200
C7659 2700P
C7656 50V1
C7655 50V1
C7658 5600P
R7661 5600
VR7660 2KB
MUTING F ADJ.
SYNC Ⓛ
GND
12V
VIDEO
GND
GND
MUTING C.B.A. (VEP07364A)
TUNER/ARU PACK C.B.A. (VEP07375B)
TV DEMODULATOR PACK C.B.A. (VEP07374B)
F
E
D
C
B
A
1
2
3
4
5
6

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

C DIAGRAM (NV-G21EO/EV)


VIDEO SIGNAL PATH
AUDIO SIGNAL PATH
IC701 M51366SP
LOCK DET
VIDEO DET
RF AGC
AFT
IF AGC
APC DET
VCO
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
TP707
TP703
TP706
L719 12μ
X711 EFCS5R5MW5
(5.5MHz TRAP)
T704 EIV5EC006A
AFC DET
T703 EIV5EC013A
VCO ADJ.
FREQ RESPONS ADJ.
T711 EIS5EC004A
QR713 UN2211 (INV.)
Q714 2SD601 or 2SD602 (BUFFER)
Q713 2SD1328(S.T) (AGC)
VR751 5K8
AUDIO LEVEL ADJ.
D712 MA27WA or MA29WA
QR701 UN2213 (MUTING)
QR702 UN2213 (P.B Ⓡ ON)
Q710 2SC1047 or 2SC2377 (RF AMP)
X712 EFCS5R5MS5 (5.5MHz TRAP)
(TO CH SELECT INTERFACE)
1 GND
2 N·SW 12V
3 VIDEO IN (RFC)
5 AUDIO IN (RFC)
6 REG 12.3V
8 BU
9 BT
10 BV
11 BS
13 VIDEO OUT
14 AFC DEF
15 AUDIO OUT
16 AUDIO DEF (S)
17 GND
18 AFC IN
19 AFC OUT
20 SYNC Ⓛ
21 P.B Ⓡ
23 REG 12V
24 GND
PK1 : Pin 1～12
PK2 : Pin 13～24
H38MSP1
6
7
8
9
10

MODE.

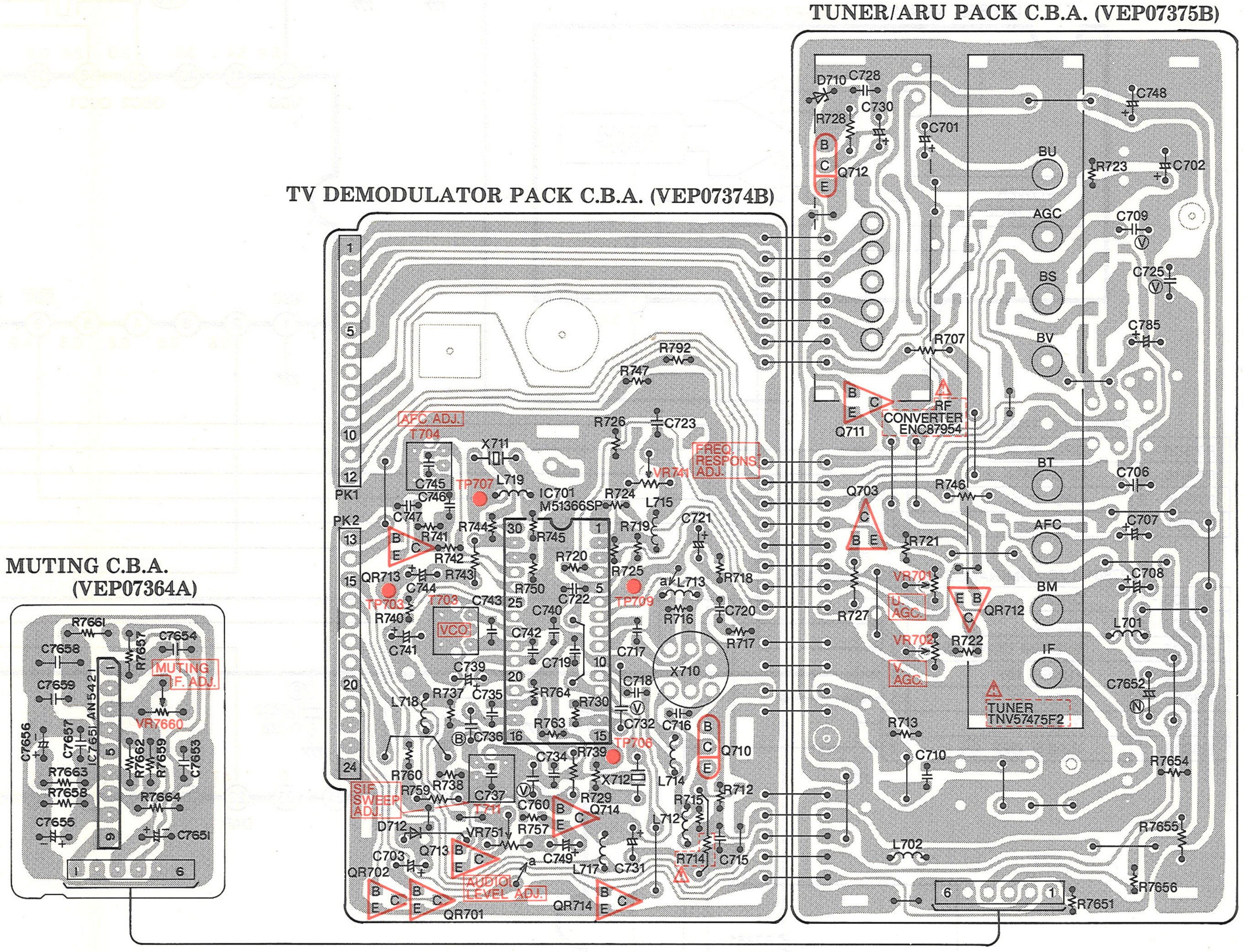
THE CORRECT PART NUMBER IS SHOWN
THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

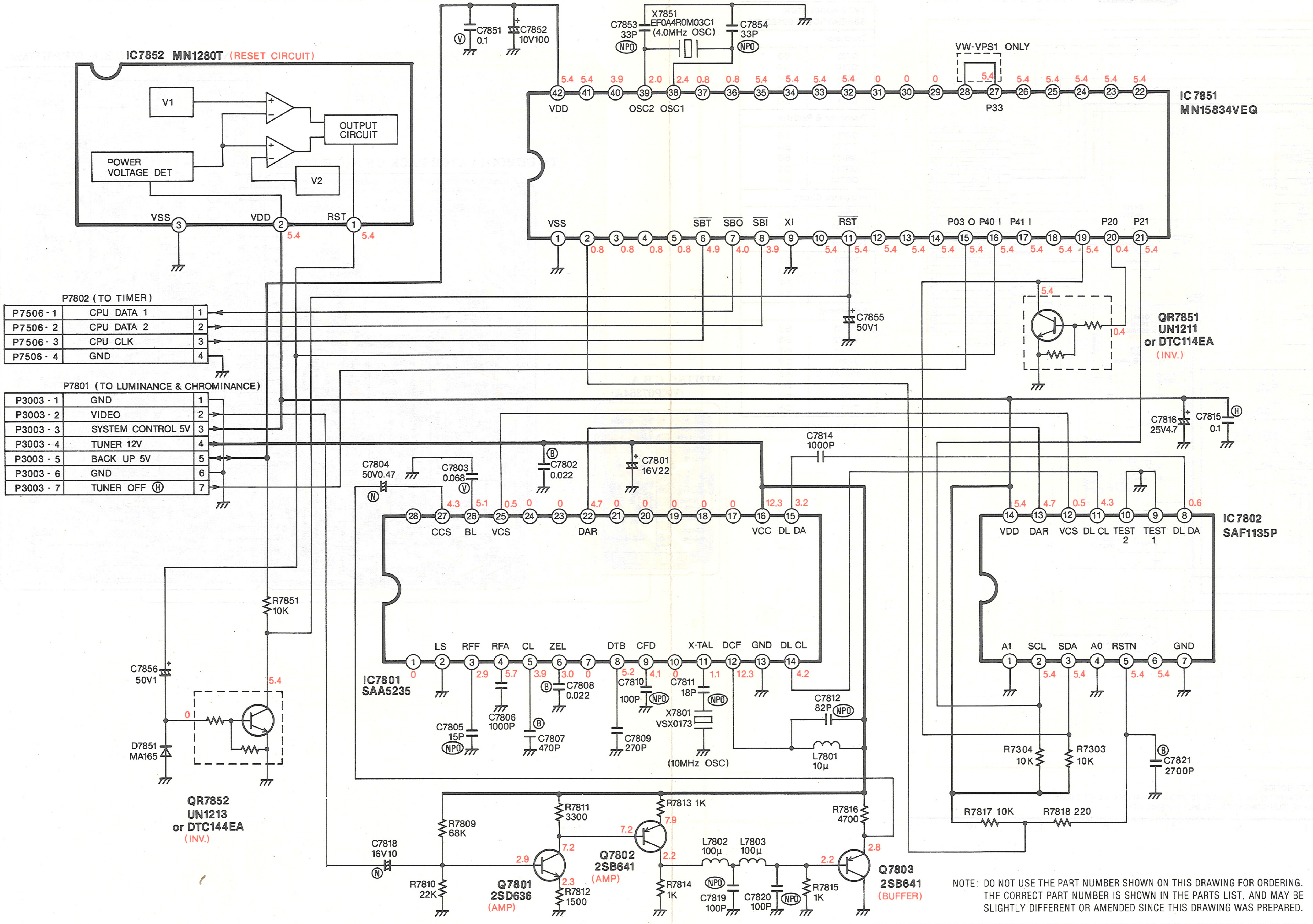
3-44. TV DEMODULATOR PACK C.B.A. (VEP07374B: NV-G21EO/EV) & TUNER/ARU PACK C.B.A. (VEP07375B: NV-G21EO/EV)

TV DEMODULATOR SCHEMATIC (NV-G21EO/EV)	
Transistor	
Q703	E-3
Q710	C-6
Q712	D-4
Q713	C-9
Q714	D-9
Transistor & Resistor	
QR701	C-9
QR702	B-9
QR711	E-2
QR712	E-3
QR713	E-9
Integrated Circuit	
IC701	F-6
IC7651	C-3
Test Point	
TP703	E-7
TP706	C-6
TP707	F-7
TP709	E-5
Adjustment	
VR701	E-2
VR702	E-3
VR741	E-5
VR751	D-9
VR7660	A-2
T703	D-7
T704	E-8
T711	C-8

ADDRESS INFORMATION


TUNER/ARU PACK C.B.A. (VEP07375B)
TV DEMODULATOR PACK C.B.A. (VEP07374B)
MUTING C.B.A. (VEP07364A)
IC701 M51366SP
AFC ADJ. T704
FREQ. RESPONS ADJ.
VR741
TP707
TP703
TP709
TP706
T703
VCO
SIF SWEEP ADJ.
AUDIO LEVEL ADJ.
MUTING IF ADJ.
VR7660
RF AGC VR701
IF AGC VR702
RF CONVERTER ENC87954
TUNER TNV57475F2
BU
AGC
BS
BV
BT
AFC
BM
IF
PK1
PK2
X710
X711
X712
QR701
QR702
QR711
QR712
QR713
QR714
Q703
Q710
Q711
Q712
Q713
Q714

3-45. VPS SCHEMATIC DIAGRAM (NV-G21EG/EV) (VW-VPS1/OPTION: NV-G21EO)


IC7852 MN1280T (RESET CIRCUIT)
V1
V2
OUTPUT CIRCUIT
POWER VOLTAGE DET
VSS
VDD
RST
C7851 0.1
C7852 10V100
X7851 EF0A4R0M03C1 (4.0MHz OSC)
C7853 33P
C7854 33P
NPO
VW-VPS1 ONLY
IC7851 MN15834VEQ
VDD
OSC2
OSC1
P33
VSS
SBT
SBO
SBI
XI
RST
P03 O
P40 I
P41 I
P20
P21
C7855 50V1
QR7851 UN1211 or DTC114EA (INV.)
P7802 (TO TIMER)
P7506-1 CPU DATA 1
P7506-2 CPU DATA 2
P7506-3 CPU CLK
P7506-4 GND
P7801 (TO LUMINANCE & CHROMINANCE)
P3003-1 GND
P3003-2 VIDEO
P3003-3 SYSTEM CONTROL 5V
P3003-4 TUNER 12V
P3003-5 BACK UP 5V
P3003-6 GND
P3003-7 TUNER OFF Ⓗ
C7804 50V0.47
C7803 0.068
C7802 0.022
C7801 16V22
C7814 1000P
C7816 25V4.7
C7815 0.1
IC7801 SAA5235
CCS
BL
VCS
DAR
VCC
DL
DA
LS
RFF
RFA
CL
ZEL
DTB
CFD
X-TAL
DCF
GND
DL CL
C7805 15P
C7806 1000P
C7807 470P
C7808 0.022
C7810 100P
C7811 18P
C7809 270P
X7801 VSX0173
(10MHz OSC)
C7812 82P
L7801 10μ
IC7802 SAF1135P
VDD
DAR
VCS
DL CL
TEST 2
TEST 1
DL DA
A1
SCL
SDA
A0
RSTN
GND
R7304 10K
R7303 10K
C7821 2700P
R7817 10K
R7818 220
R7851 10K
C7856 50V1
D7851 MA165
QR7852 UN1213 or DTC144EA (INV.)
C7818 16V10
R7809 68K
R7810 22K
R7811 3300
R7812 1500
Q7801 2SD636 (AMP)
R7813 1K
Q7802 2SB641 (AMP)
R7814 1K
L7802 100μ
L7803 100μ
C7819 100P
C7820 100P
R7815 1K
R7816 4700
Q7803 2SB641 (BUFFER)

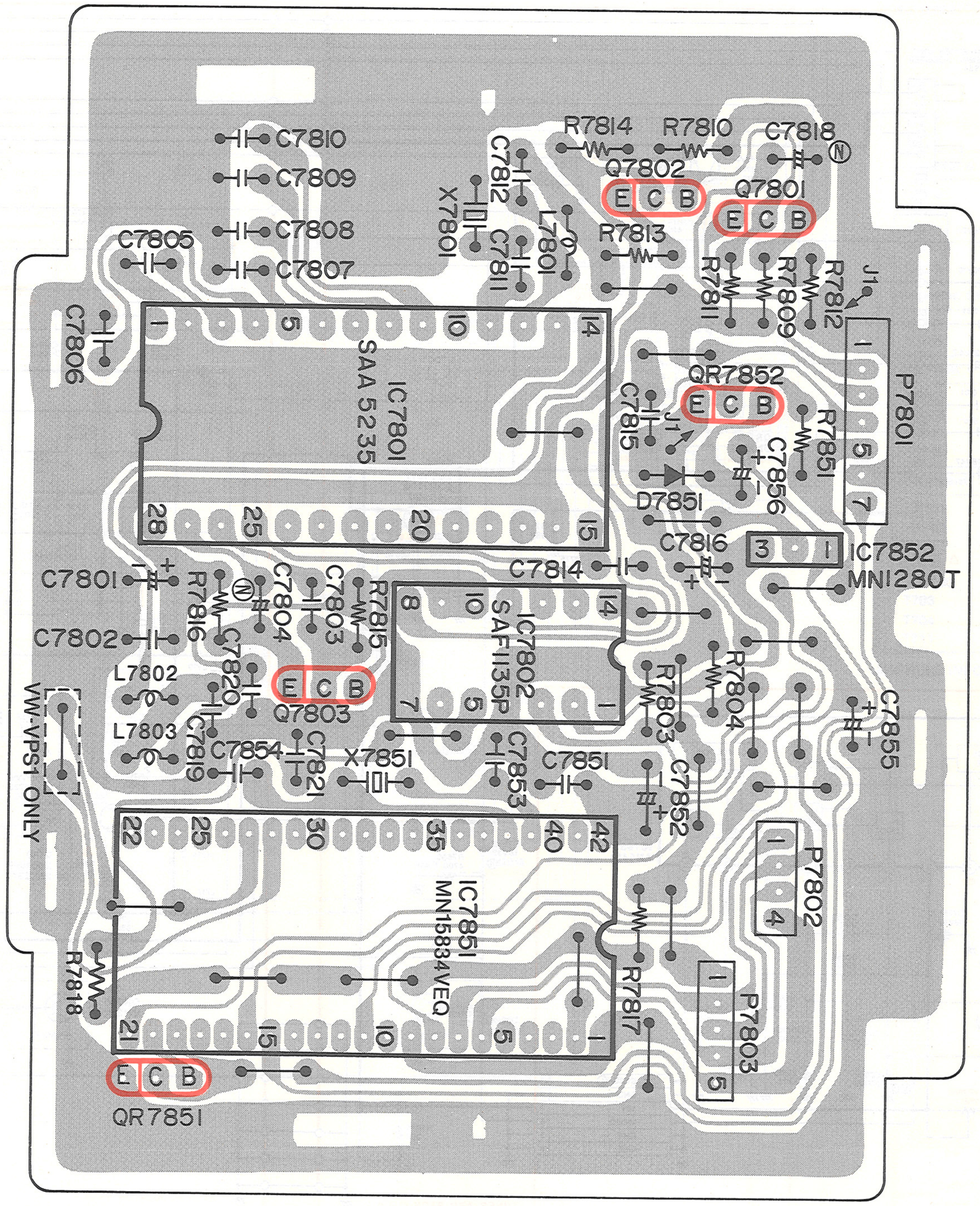
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.

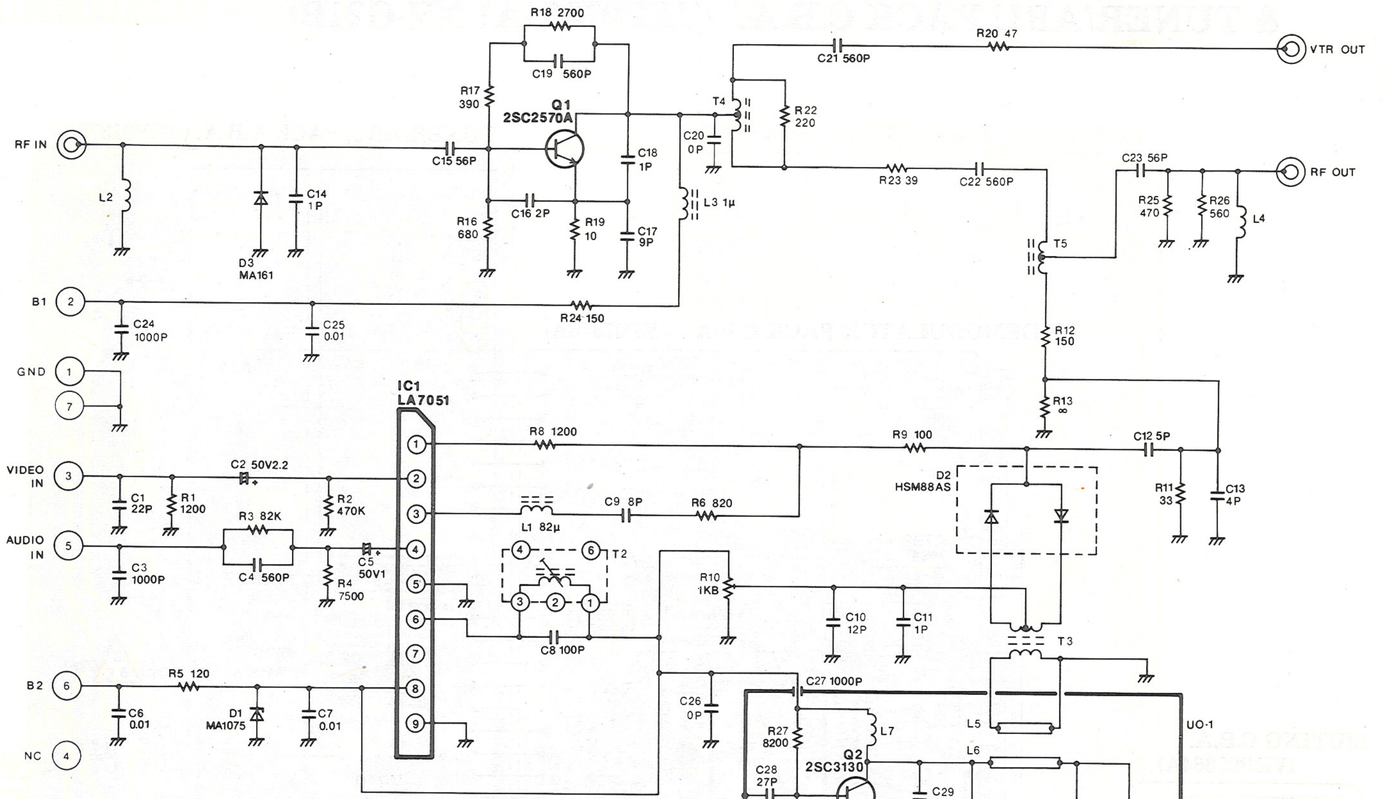
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

Back Page:
TV DEMODULATOR Section

3-46. VPS C.B.A. (VEP07368C: NV-G21EG/EV) (VW-VPS1/OPTION: NV-G21EO)

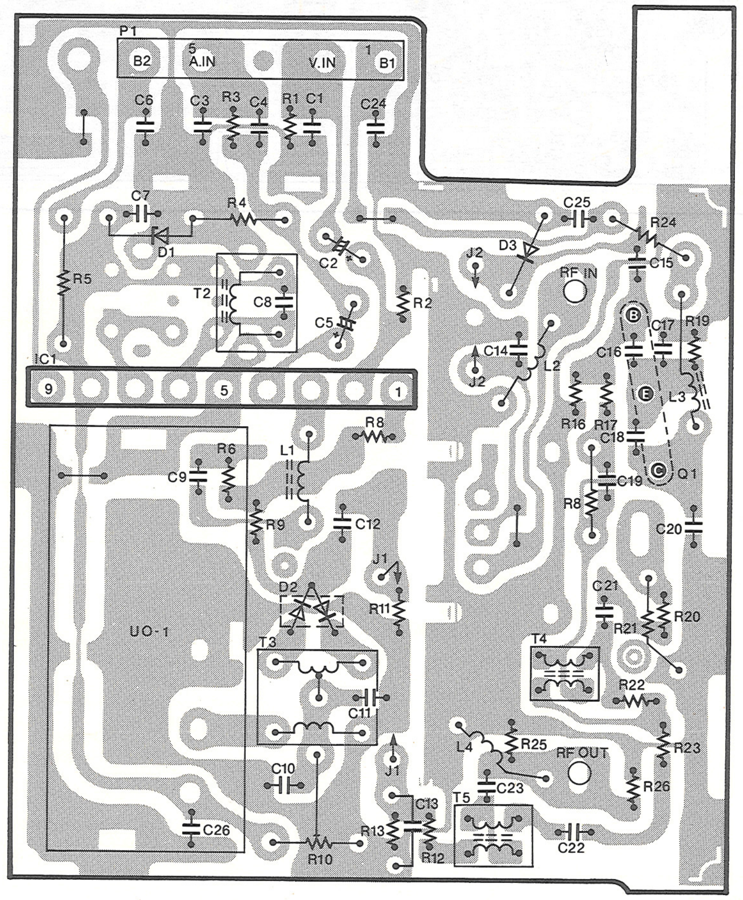

C7810
C7809
C7808
C7807
C7805
C7806
C7812
X7801
C7811
L7801
R7814
R7810
C7818
Q7802
E C B
Q7801
E C B
R7813
R7811
R7809
R7812
J1
IC7801
SAA 5235
1
5
10
14
15
20
25
28
P7801
QR7852
E C B
C7815
J1
R7851
C7856
D7851
C7816
IC7852
MN1280T
C7814
C7801
R7816
C7804
C7803
R7815
C7820
IC7802
SAF1135P
C7802
L7802
Q7803
E C B
L7803
C7819
C7854
C7821
X7851
C7853
C7851
C7852
R7803
R7804
C7855
VW-VPS1 ONLY
IC7851
MN15834VEQ
22
21
30
35
40
42
P7802
R7817
P7803
R7818
QR7851
E C B

3-47. RF CONVERTER SCHEMATIC DIAGRAM (NV-G21EG)

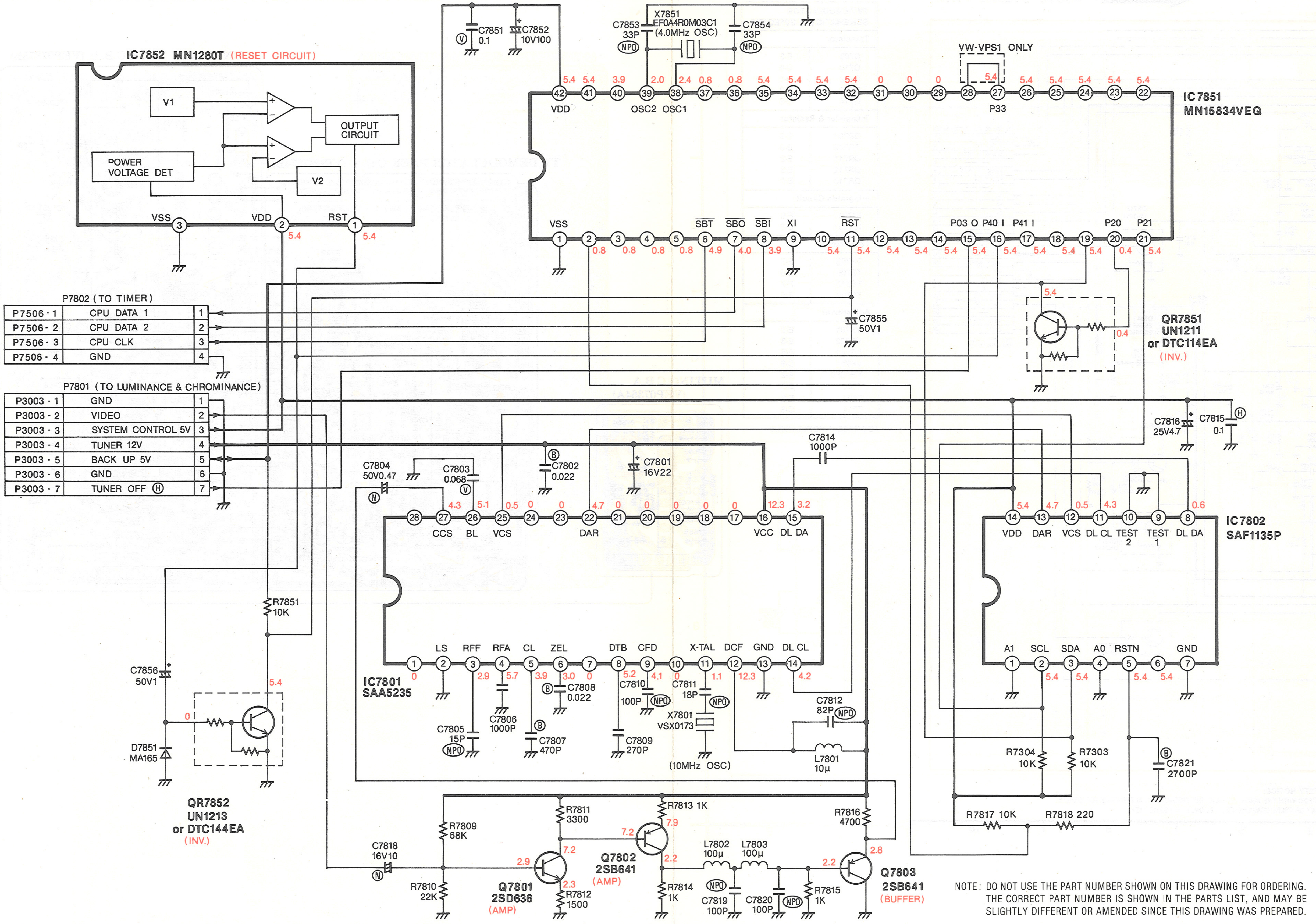

R18 2700
C19 560P
R17 390
Q1 2SC2570A
C15 56P
RF IN
L2
D3 MA161
C14 1P
C16 2P
R16 680
R19 10
C18 1P
C17 9P
C20 0P
L3 1μ
T4
R22 220
C21 560P
R20 47
VTR OUT
R23 39
C22 560P
C23 56P
R25 470
R26 560
L4
RF OUT
T5
B1
C24 1000P
C25 0.01
R24 150
R12 150
R13 ∞
GND
IC1 LA7051
R8 1200
R9 100
C12 5P
D2 HSM88AS
R11 33
C13 4P
VIDEO IN
C1 22P
R1 1200
C2 50V2.2
R2 470K
L1 82μ
C9 8P
R6 820
AUDIO IN
R3 82K
C4 560P
C3 1000P
R4 7500
C5 50V1
T2
R10 1KB
C10 12P
C11 1P
T3
C8 100P
B2
R5 120
C6 0.01
D1 MA1075
C7 0.01
C26 0P
C27 1000P
R27 8200
L7
Q2 2SC3130
C28 27P
R28 8200
R29 390
C29 1.5P
C30 2P
C31 14P
L5
L6
C32 3P
C33 VC
UO-1
NC

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

3-48. RF CONVERTER C.B.A. (ENC87956: NV-G21EG)


P1
B2
5 A.IN
V.IN
1 B1
C6
C3
R3
C4
R1
C1
C24
C7
R4
D1
C25
R24
D3
C15
R5
T2
C8
C2
C5
R2
J2
RF IN
C14
L2
C16
C17
R19
L3
R16
R17
C18
Q1
C19
R8
C20
IC1
9
5
1
R6
L1
C9
R9
C12
J1
D2
R11
UO-1
T3
C11
C21
R21
R20
T4
R22
C10
L4
R25
RF OUT
R23
C23
R26
T5
C13
C26
R13
R10
R12
C22

3-45. VPS SCHEMATIC DIAGRAM (NV-G21EG/EV) (VW-VPS1/OPTION: NV-G21EO)


IC7852 MN1280T (RESET CIRCUIT)
V1
V2
POWER VOLTAGE DET
OUTPUT CIRCUIT
VSS
VDD
RST
X7851
EF0A4R0M03C1
(4.0MHz OSC)
C7853 33P
C7854 33P
NPO
C7851 0.1
C7852 10V100
VW-VPS1 ONLY
IC7851
MN15834VEQ
VDD
OSC2
OSC1
P33
VSS
SBT
SBO
SBI
XI
RST
P03 O
P40 I
P41 I
P20
P21
C7855 50V1
QR7851
UN1211
or DTC114EA
(INV.)
P7802 (TO TIMER)
P7506 - 1
CPU DATA 1
P7506 - 2
CPU DATA 2
P7506 - 3
CPU CLK
P7506 - 4
GND
P7801 (TO LUMINANCE & CHROMINANCE)
P3003 - 1
GND
P3003 - 2
VIDEO
P3003 - 3
SYSTEM CONTROL 5V
P3003 - 4
TUNER 12V
P3003 - 5
BACK UP 5V
P3003 - 6
GND
P3003 - 7
TUNER OFF
C7816 25V4.7
C7815 0.1
C7814 1000P
C7804 50V0.47
C7803 0.068
C7802 0.022
C7801 16V22
CCS
BL
VCS
DAR
VCC
DL DA
LS
RFF
RFA
CL
ZEL
DTB
CFD
X-TAL
DCF
GND
DL CL
IC7801
SAA5235
C7805 15P
C7806 1000P
C7807 470P
C7808 0.022
C7810 100P
C7809 270P
C7811 18P
X7801 VSX0173
(10MHz OSC)
C7812 82P
L7801 10µ
IC7802
SAF1135P
VDD
DAR
VCS
DL CL
TEST 2
TEST 1
DL DA
A1
SCL
SDA
A0
RSTN
GND
R7304 10K
R7303 10K
C7821 2700P
R7817 10K
R7818 220
R7816 4700
R7851 10K
C7856 50V1
D7851 MA165
QR7852
UN1213
or DTC144EA
(INV.)
C7818 16V10
R7809 68K
R7810 22K
R7811 3300
R7812 1500
R7813 1K
R7814 1K
R7815 1K
L7802 100µ
L7803 100µ
C7819 100P
C7820 100P
Q7801
2SD636
(AMP)
Q7802
2SB641
(AMP)
Q7803
2SB641
(BUFFER)

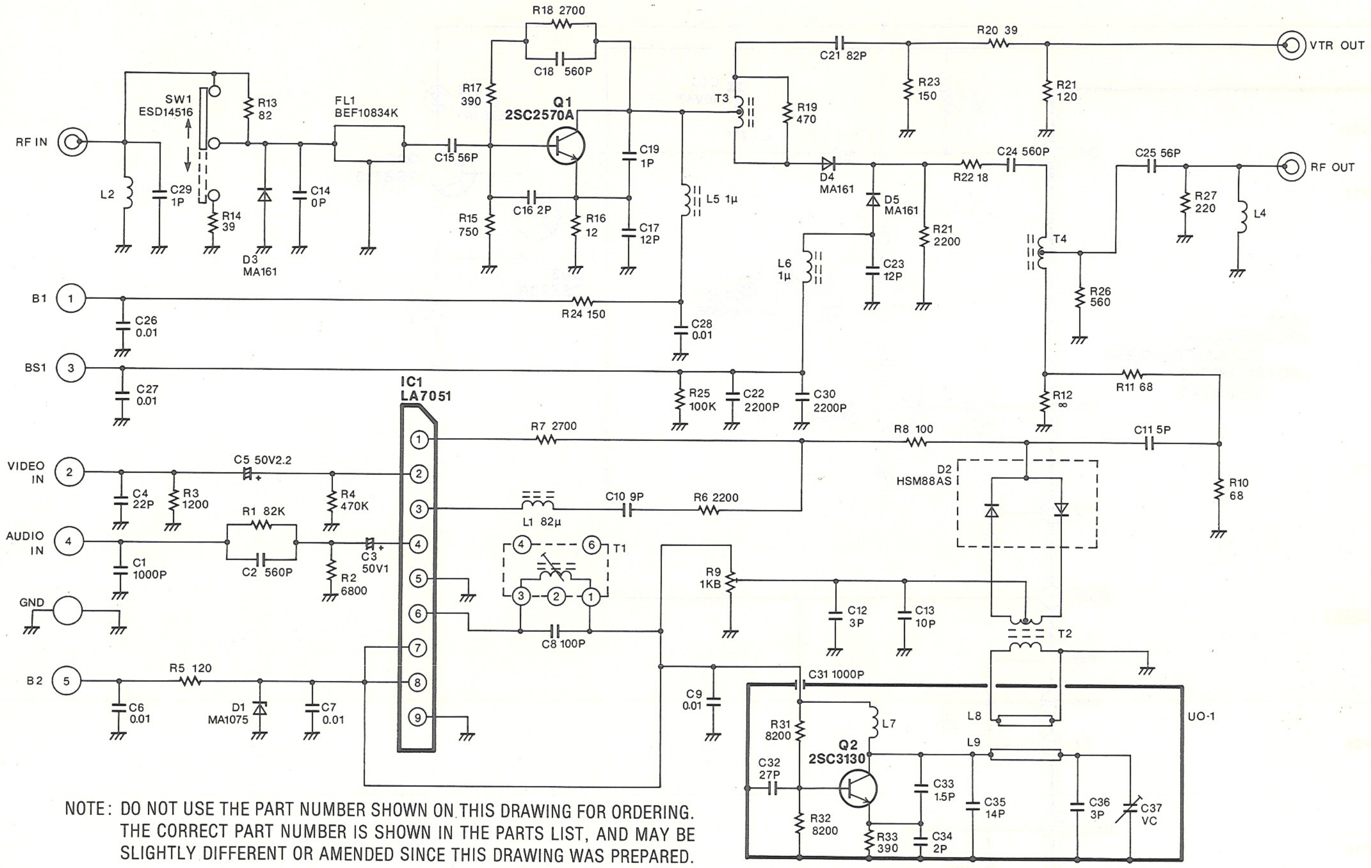
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

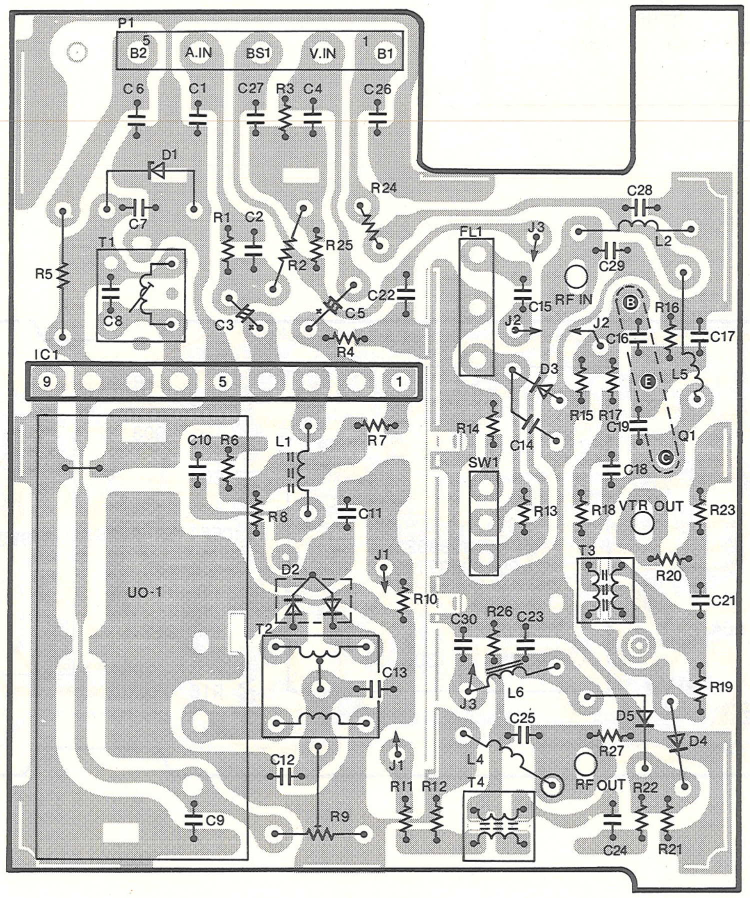
Back Page:
TV DEMODULATOR Section

3-49. RF CONVERTER SCHEMATIC DIAGRAM (NV-G21B)

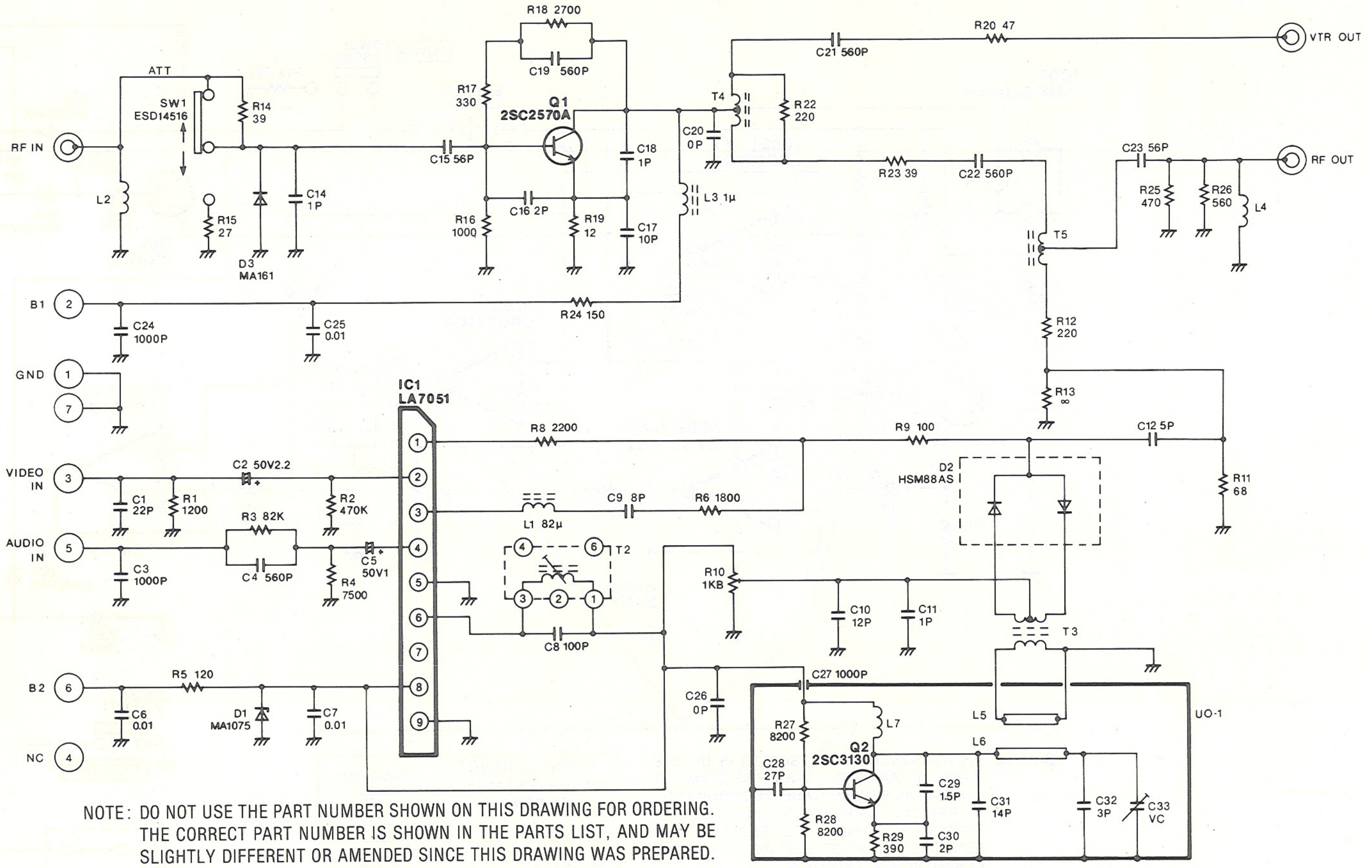

RF IN
VTR OUT
RF OUT
SW1 ESD14516
FL1 BEF10834K
Q1 2SC2570A
Q2 2SC3130
IC1 LA7051
D2 HSM88AS
D3 MA161
D4 MA161
D5 MA161
D1 MA1075
T1
T2
T3
T4
L1 82μ
L5 1μ
L6 1μ
UO-1
B1
BS1
VIDEO IN
AUDIO IN
GND
B2
R18 2700
C18 560P
R20 39
C21 82P
R17 390
R13 82
C15 56P
R19 470
R23 150
R21 120
C19 1P
C16 2P
R15 750
R16 12
C17 12P
R22 18
C24 560P
C25 56P
R27 220
L4
R14 39
C29 1P
C14 0P
L2
C23 12P
R21 2200
R26 560
R24 150
C26 0.01
C28 0.01
C27 0.01
R25 100K
C22 2200P
C30 2200P
R12 ∞
R11 68
R7 2700
R8 100
C11 5P
C5 50V2.2
C4 22P
R3 1200
R4 470K
C10 9P
R6 2200
R10 68
R1 82K
C1 1000P
C2 560P
C3 50V1
R2 6800
R9 1KB
C12 3P
C13 10P
C8 100P
R5 120
C6 0.01
C7 0.01
C9 0.01
C31 1000P
R31 8200
C32 27P
L7
L8
L9
R32 8200
R33 390
C33 1.5P
C34 2P
C35 14P
C36 3P
C37 VC

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

3-50. RF CONVERTER C.B.A. (ENC87952: NV-G21B)

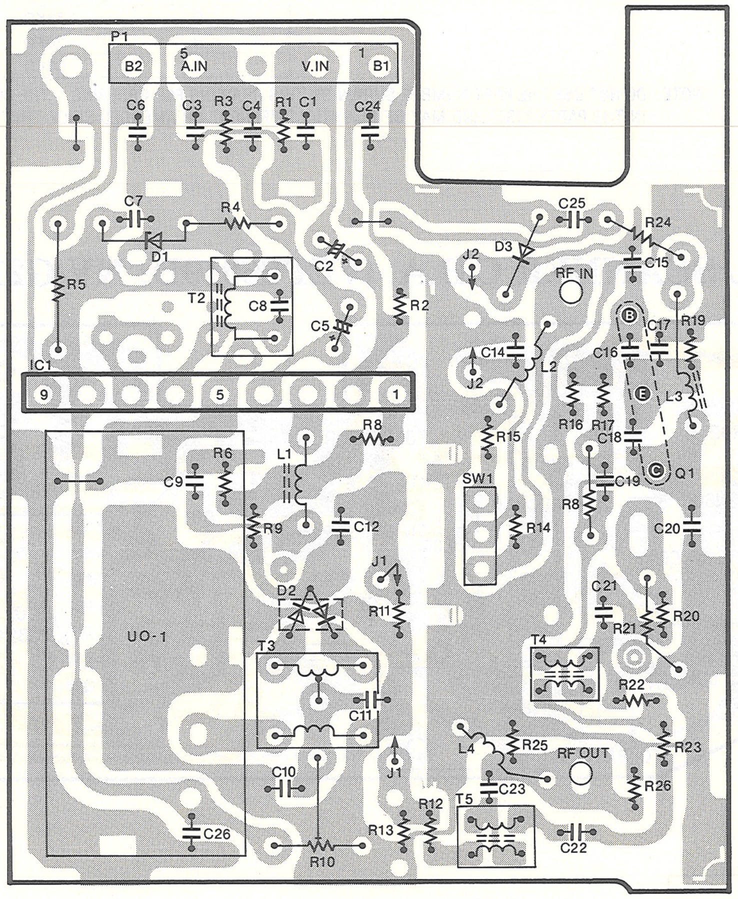

P1
B2
A.IN
BS1
V.IN
B1
IC1
UO-1
FL1
SW1
RF IN
VTR OUT
RF OUT
T1
T2
T3
T4
D1
D2
D3
D4
D5
Q1
J1
J2
J3

3-51. RF CONVERTER SCHEMATIC DIAGRAM (NV-G21EO/EV)

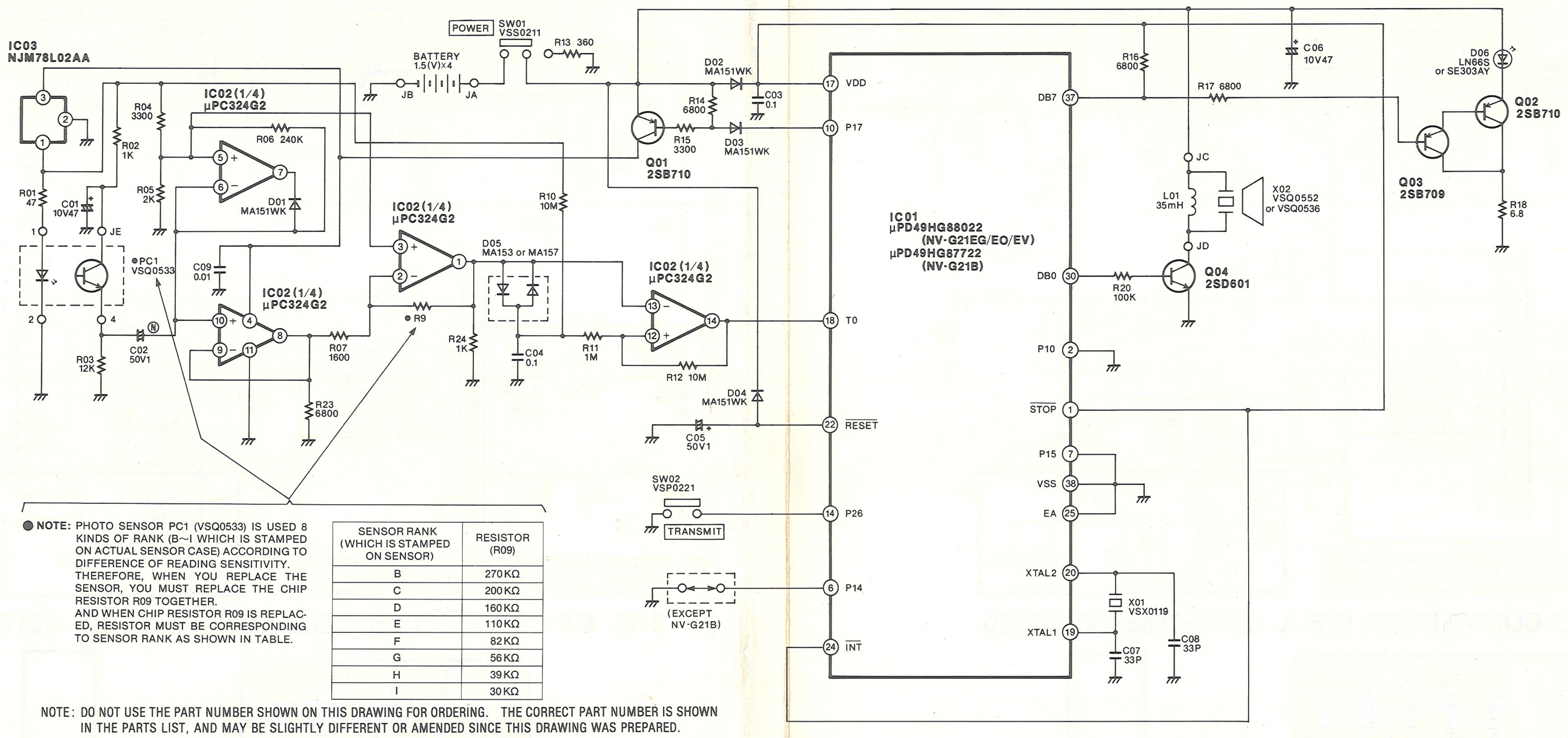

RF IN
VTR OUT
RF OUT
ATT
SW1 ESD14516
Q1 2SC2570A
Q2 2SC3130
IC1 LA7051
D2 HSM88AS
D3 MA161
D1 MA1075
T1
T2
T3
T4
T5
L1 82μ
L3 1μ
UO-1
B1
GND
VIDEO IN
AUDIO IN
B2
NC
R18 2700
C19 560P
R20 47
C21 560P
R17 330
R14 39
C15 56P
R22 220
C18 1P
C20 0P
C16 2P
R16 1000
R19 12
C17 10P
R23 39
C22 560P
C23 56P
R25 470
R26 560
L4
R15 27
C14 1P
L2
R24 150
C24 1000P
C25 0.01
R12 220
R13 ∞
R8 2200
R9 100
C12 5P
R11 68
C2 50V2.2
C1 22P
R1 1200
R2 470K
C9 8P
R6 1800
R3 82K
C3 1000P
C4 560P
C5 50V1
R4 7500
R10 1KB
C10 12P
C11 1P
C8 100P
R5 120
C6 0.01
C7 0.01
C26 0P
C27 1000P
R27 8200
C28 27P
L5
L6
L7
R28 8200
R29 390
C29 1.5P
C30 2P
C31 14P
C32 3P
C33 VC

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

3-52. RF CONVERTER C.B.A. (ENC87954: NV-G21EO/EV)


P1
B2
A.IN
V.IN
B1
IC1
UO-1
SW1
RF IN
RF OUT
T2
T3
T4
T5
D1
D2
D3
Q1
J1
J2

3-53. DIGITAL SCANNER SCHEMATIC DIAGRAM —UNIT NO. : VEQ0549 (NV-G21EG/EO/EV), VEQ0540 (NV-G21B)—

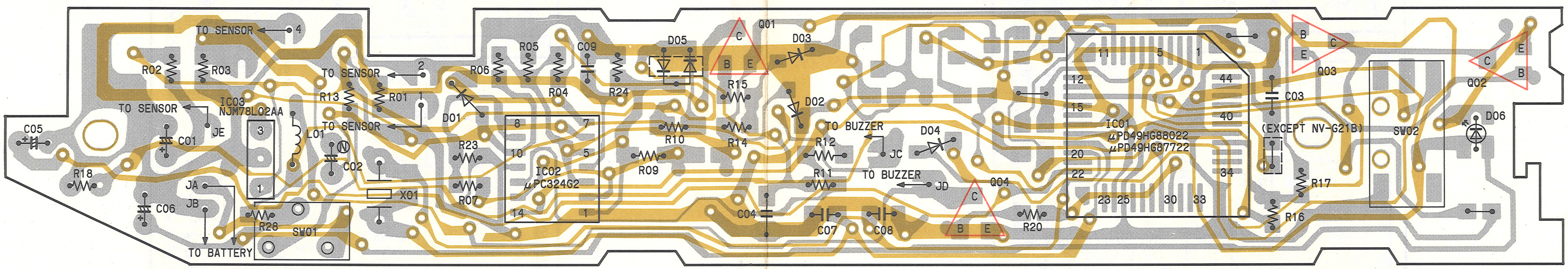

IC03
NJM78L02AA
POWER
SW01
VSS0211
BATTERY
1.5(V)×4
JB
JA
R13 360
D02
MA151WK
C03
0.1
R14
6800
R15
3300
D03
MA151WK
Q01
2SB710
IC02 (1/4)
μPC324G2
R04
3300
R02
1K
R06 240K
R05
2K
D01
MA151WK
R01
47
C01
10V47
JE
PC1
VSQ0533
C09
0.01
R10
10M
D05
MA153 or MA157
R9
R03
12K
C02
50V1
R07
1600
R23
6800
R24
1K
C04
0.1
R11
1M
R12 10M
D04
MA151WK
C05
50V1
SW02
VSP0221
TRANSMIT
(EXCEPT
NV-G21B)
IC01
μPD49HG88022
(NV-G21EG/EO/EV)
μPD49HG87722
(NV-G21B)
VDD
P17
T0
RESET
P26
P14
INT
DB7
DB0
P10
STOP
P15
VSS
EA
XTAL2
XTAL1
X01
VSX0119
C07
33P
C08
33P
R16
6800
R17 6800
C06
10V47
D06
LN66S
or SE303AY
Q02
2SB710
Q03
2SB709
R18
6.8
JC
JD
L01
35mH
X02
VSQ0552
or VSQ0536
R20
100K
Q04
2SD601

● **NOTE:** PHOTO SENSOR PC1 (VSQ0533) IS USED 8 KINDS OF RANK (B~I WHICH IS STAMPED ON ACTUAL SENSOR CASE) ACCORDING TO DIFFERENCE OF READING SENSITIVITY.
THEREFORE, WHEN YOU REPLACE THE SENSOR, YOU MUST REPLACE THE CHIP RESISTOR R09 TOGETHER.
AND WHEN CHIP RESISTOR R09 IS REPLACED, RESISTOR MUST BE CORRESPONDING TO SENSOR RANK AS SHOWN IN TABLE.

SENSOR RANK (WHICH IS STAMPED ON SENSOR)	RESISTOR (R09)
B	270KΩ
C	200KΩ
D	160KΩ
E	110KΩ
F	82KΩ
G	56KΩ
H	39KΩ
I	30KΩ

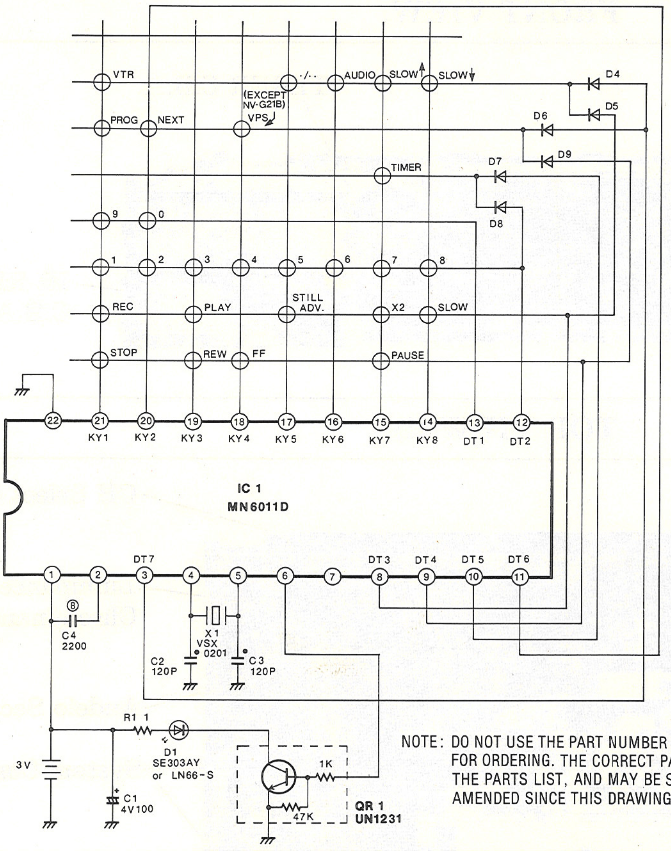
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

3-54. DIGITAL SCANNER C.B.A. (VEP66019D: NV-G21EG/EO/EV) (VEP66019E: NV-G21B)


TO SENSOR
R02
R03
TO SENSOR
R13
R01
TO SENSOR
IC03
NJM78L02AA
JE
L01
TO SENSOR
C05
C01
R18
C06
JA
JB
TO BATTERY
R28
SW01
C02
X01
D01
R06
R05
R04
C09
R24
D05
R23
R07
IC02
μPC324G2
R10
R09
Q01
R15
R14
D03
D02
TO BUZZER
R12
JC
R11
TO BUZZER
JD
D04
C04
C07
C08
Q04
R20
IC01
μPD49HG88022
μPD49HG87722
C03
(EXCEPT NV-G21B)
Q03
R17
R16
SW02
Q02
D06
B
E
C

Back Page:
RF CONVERTER Section

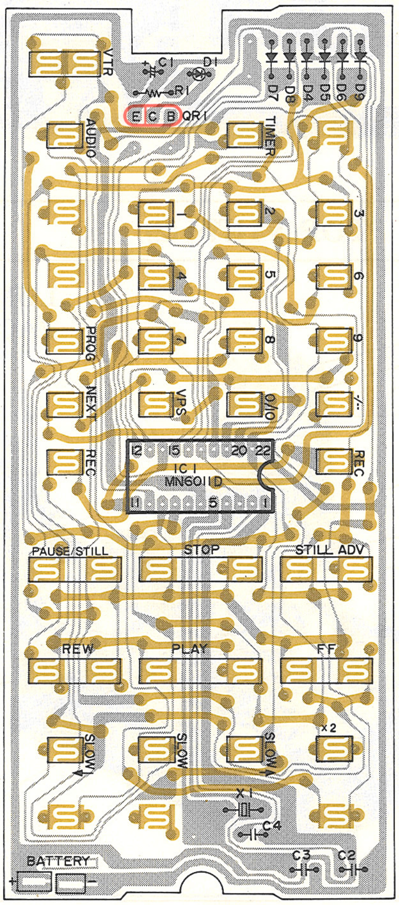
-55. PROGRAMMABLE REMOTE CONTROL UNIT SCHEMATIC DIAGRAM
— UNIT NO. : VEQ0534 (NV-G21EG/EO/EV), VEQ0539 (NV-G21B) —



VTR
·/··
AUDIO
SLOW▲
SLOW▼
D4
D5
PROG
NEXT
(EXCEPT NV-G21B) VPS
D6
D9
D7
TIMER
D8
9
0
1
2
3
4
5
6
7
8
REC
PLAY
STILL ADV.
X2
SLOW
STOP
REW
FF
PAUSE
22
21
20
19
18
17
16
15
14
13
12
KY1
KY2
KY3
KY4
KY5
KY6
KY7
KY8
DT1
DT2
IC 1
MN6011D
DT7
DT3
DT4
DT5
DT6
1
2
3
4
5
6
7
8
9
10
11
C4
2200
X1
VSX
0201
C2
120P
C3
120P
R1 1
D1
SE303AY
or LN66-S
3V
C1
4V100
1K
47K
QR 1
UN1231

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

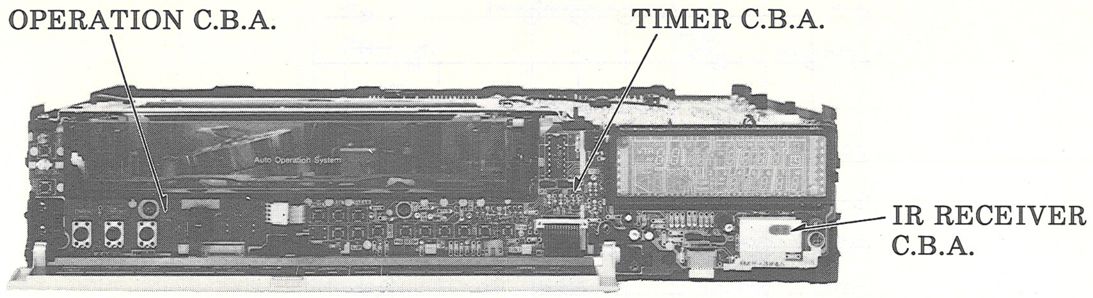
3-56. PROGRAMMABLE REMOTE CONTROL UNIT C.B.A.
(VEP22066A)



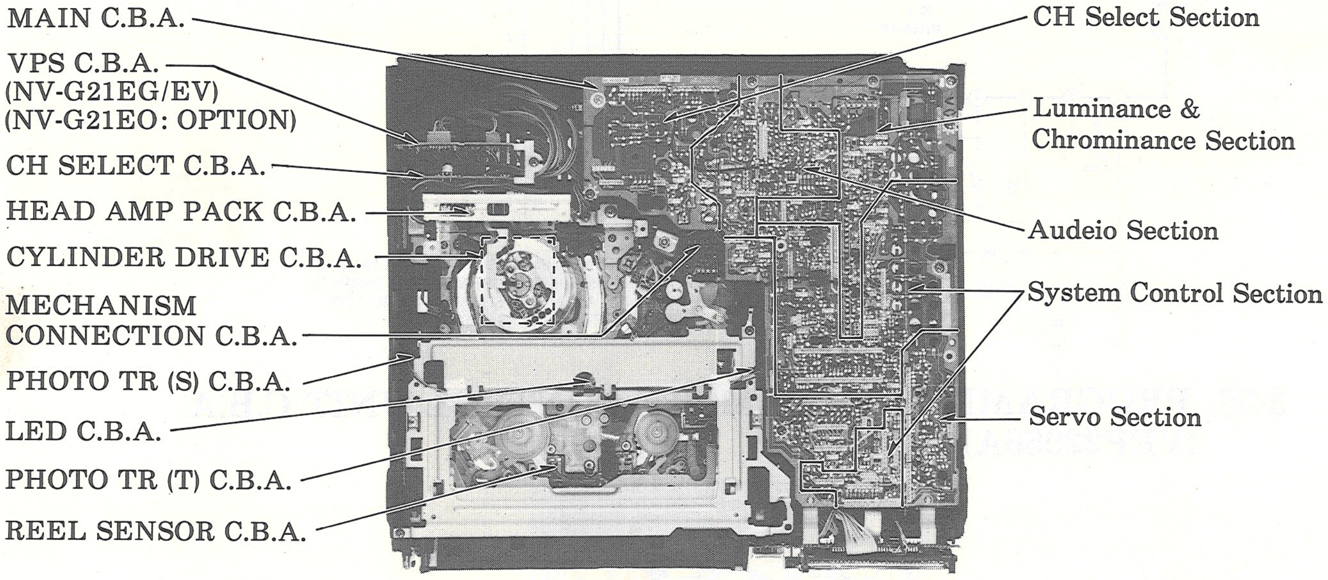
VTR
C1
D1
R1
D7
D8
D4
D5
D6
D9
E C B
QR1
AUDIO
TIMER
1
2
3
4
5
6
PROG
7
8
9
NEXT
VPS
0/10
·/··
REC
IC1
MN6011D
12
15
20
22
11
5
1
REC
PAUSE/STILL
STOP
STILL ADV
REW
PLAY
FF
SLOW
SLOW
SLOW
x2
X1
C4
BATTERY
+
-
C3
C2

3-57. CIRCUIT BOARD LAYOUT

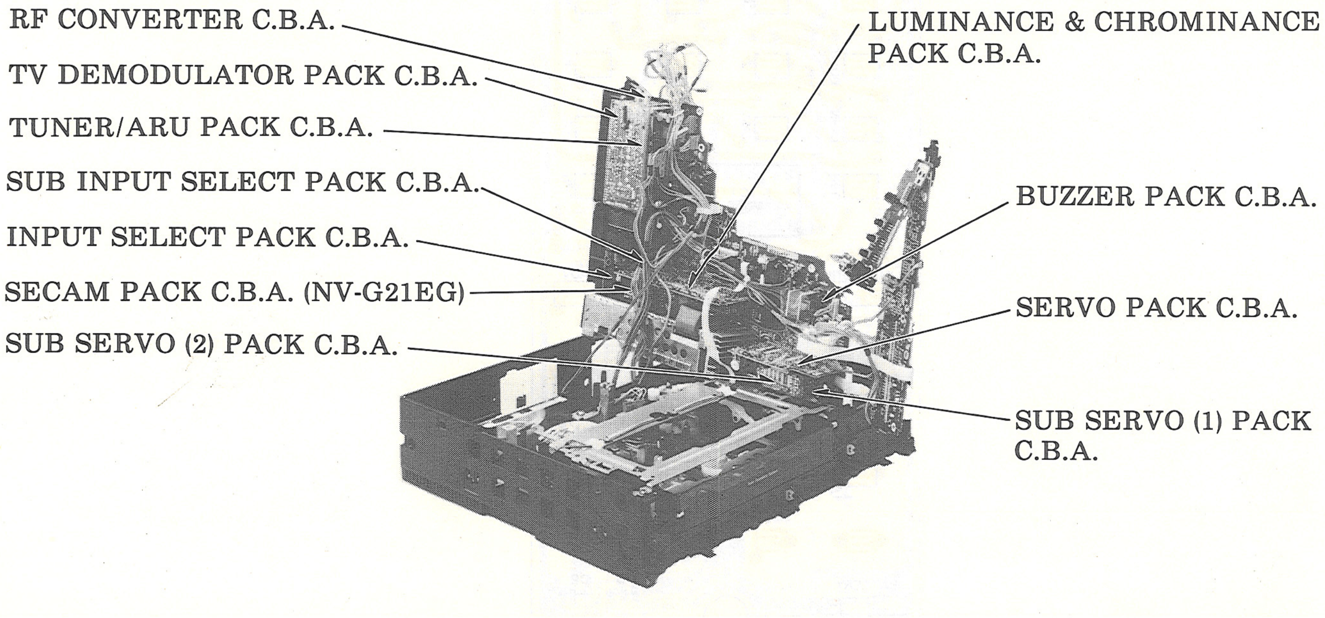
FRONT VIEW


OPERATION C.B.A.
TIMER C.B.A.
IR RECEIVER C.B.A.
Auto Operation System

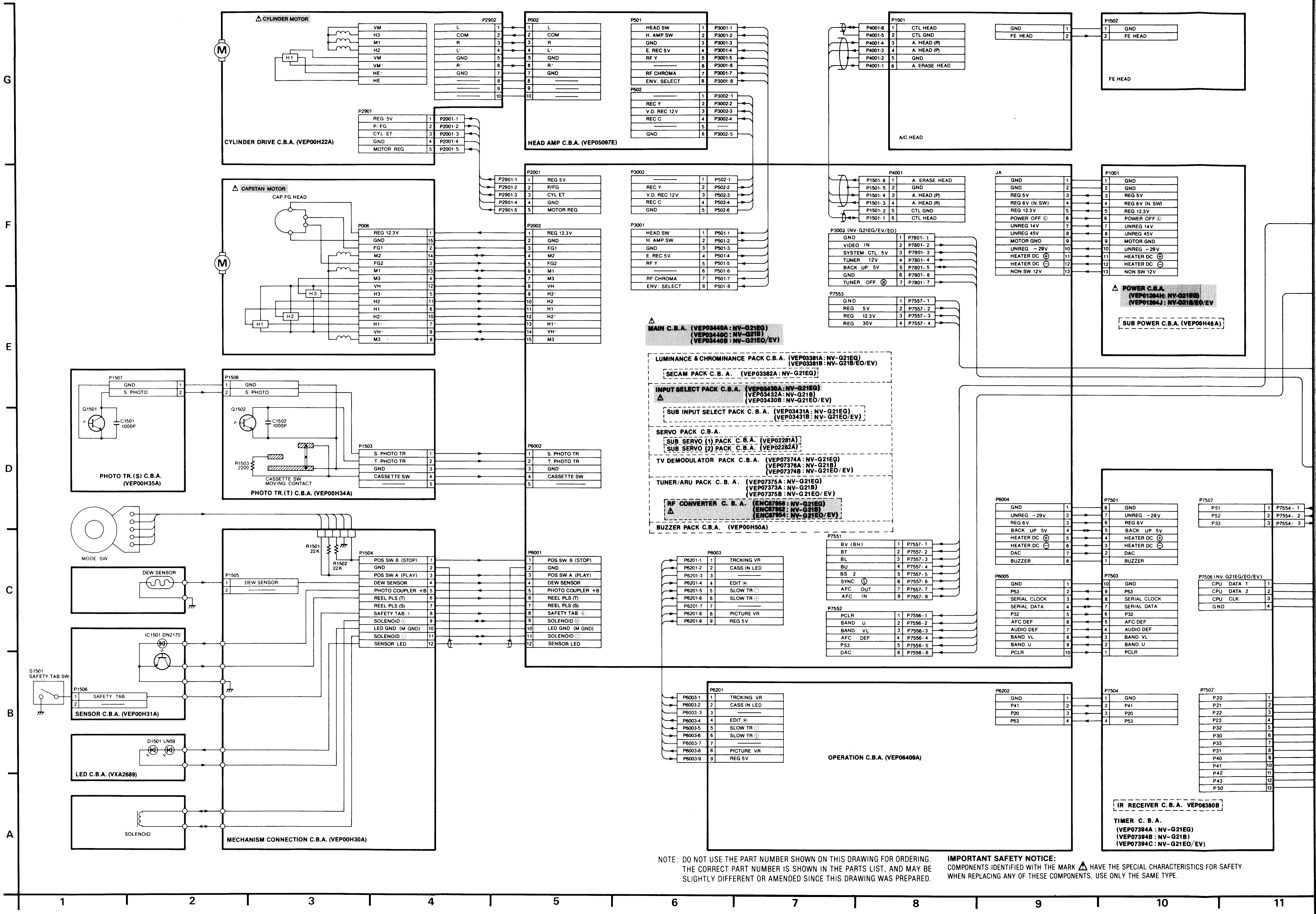
TOP VIEW (1)


MAIN C.B.A.
VPS C.B.A. (NV-G21EG/EV) (NV-G21EO: OPTION)
CH SELECT C.B.A.
HEAD AMP PACK C.B.A.
CYLINDER DRIVE C.B.A.
MECHANISM CONNECTION C.B.A.
PHOTO TR (S) C.B.A.
LED C.B.A.
PHOTO TR (T) C.B.A.
REEL SENSOR C.B.A.
CH Select Section
Luminance & Chrominance Section
Audeio Section
System Control Section
Servo Section

TOP VIEW (2)

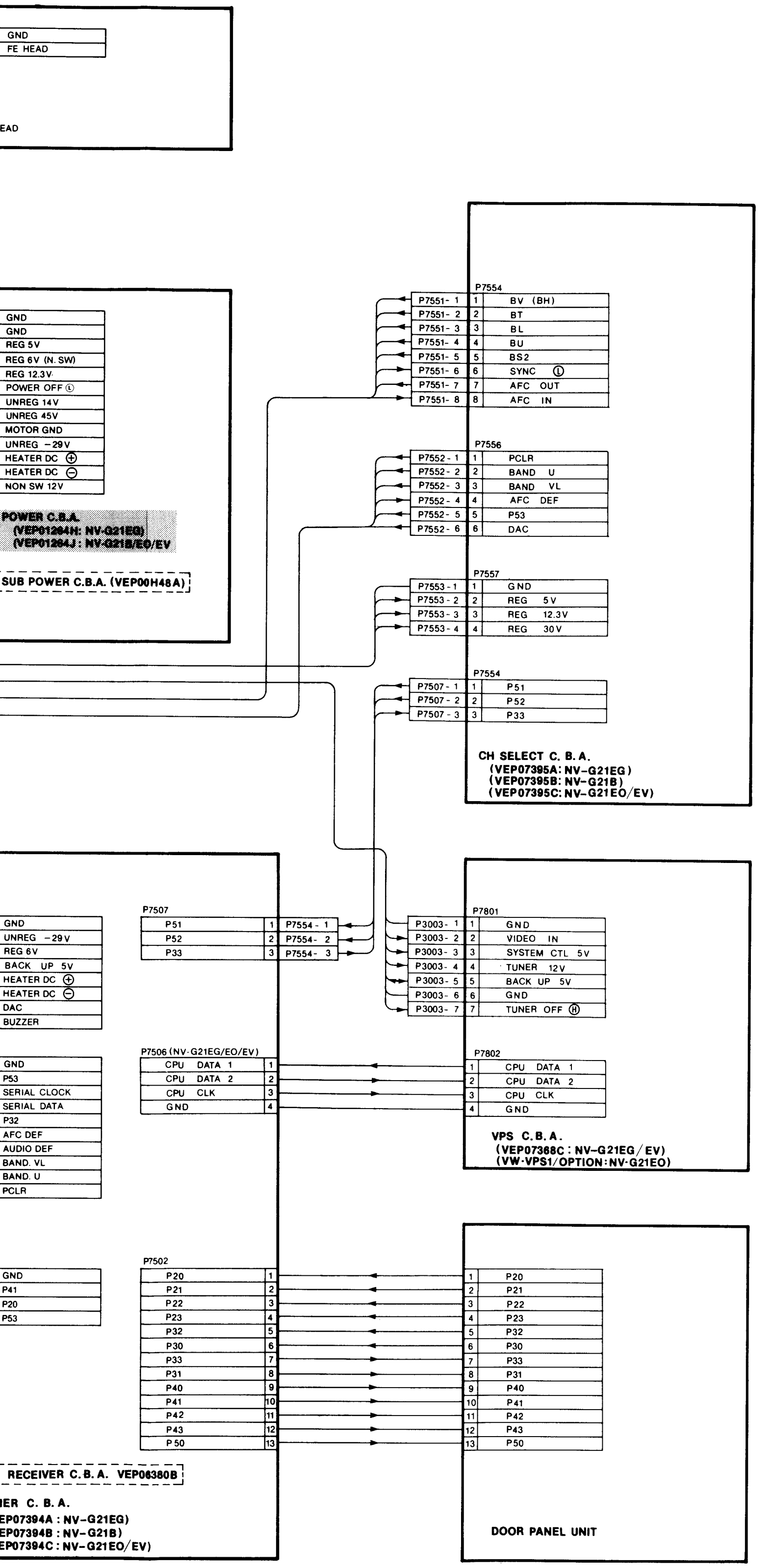

RF CONVERTER C.B.A.
TV DEMODULATOR PACK C.B.A.
TUNER/ARU PACK C.B.A.
SUB INPUT SELECT PACK C.B.A.
INPUT SELECT PACK C.B.A.
SECAM PACK C.B.A. (NV-G21EG)
SUB SERVO (2) PACK C.B.A.
LUMINANCE & CHROMINANCE PACK C.B.A.
BUZZER PACK C.B.A.
SERVO PACK C.B.A.
SUB SERVO (1) PACK C.B.A.

3-58. INTERCONNECTION SCHEMATIC DIAGRAM


⚠ CYLINDER MOTOR
CYLINDER DRIVE C.B.A. (VEP00H22A)
HEAD AMP C.B.A. (VEP05097E)
A/C HEAD
FE HEAD
⚠ CAPSTAN MOTOR
CAP FG HEAD
⚠ MAIN C.B.A. (VEP03440A : NV-G21EG)
(VEP03440C : NV-G21B)
(VEP03440B : NV-G21EO/EV)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03381A : NV-G21EG)
(VEP03381B : NV-G21B/EO/EV)
SECAM PACK C. B. A. (VEP03382A : NV-G21EG)
INPUT SELECT PACK C.B.A. ⚠ (VEP03430A : NV-G21EG)
(VEP03432A : NV-G21B)
(VEP03430B : NV-G21EO/EV)
SUB INPUT SELECT PACK C. B. A. (VEP03431A : NV-G21EG)
(VEP03431B : NV- G21EO/EV)
SERVO PACK C.B.A.
SUB SERVO (1) PACK C. B. A. (VEP02281A)
SUB SERVO (2) PACK C. B. A. (VEP02282A)
TV DEMODULATOR PACK C. B. A. (VEP07374A : NV-G21EG)
(VEP07376A : NV-G21B)
(VEP07374B : NV-G21EO/EV)
TUNER/ARU PACK C. B. A. (VEP07375A : NV-G21EG)
(VEP07373A : NV-G21B)
(VEP07375B : NV-G21EO/EV)
RF CONVERTER C. B. A. ⚠ (ENC87956 : NV-G21EG)
(ENC87952 : NV-G21B)
(ENC87954 : NV-G21EO/EV)
BUZZER PACK C.B.A. (VEP00H50A)
⚠ POWER C.B.A. (VEP01264H : NV-G21EG)
(VEP01264J : NV-G21B/EO/EV)
SUB POWER C.B.A. (VEP00H48A)
PHOTO TR.(S) C.B.A. (VEP00H35A)
PHOTO TR.(T) C.B.A. (VEP00H34A)
CASSETTE SW MOVING CONTACT
MODE SW
DEW SENSOR
IC1501 DN2170
S1501 SAFETY TAB SW
SENSOR C.B.A. (VEP00H31A)
D1501 LN59
LED C.B.A. (VXA2689)
SOLENOID
MECHANISM CONNECTION C.B.A. (VEP00H30A)
OPERATION C.B.A. (VEP06409A)
IR RECEIVER C.B.A. VEP06380B
TIMER C. B. A.
(VEP07394A : NV-G21EG)
(VEP07394B : NV-G21B)
(VEP07394C : NV-G21EO/EV)
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.


GND
FE HEAD
EAD
GND
GND
REG 5V
REG 6V (N. SW)
REG 12.3V
POWER OFF Ⓛ
UNREG 14V
UNREG 45V
MOTOR GND
UNREG −29V
HEATER DC ⊕
HEATER DC ⊖
NON SW 12V
POWER C.B.A.
(VEP01264H: NV-G21EG)
(VEP01264J : NV-G21B/EO/EV
SUB POWER C.B.A. (VEP00H48A)
P7554
P7551- 1
P7551- 2
P7551- 3
P7551- 4
P7551- 5
P7551- 6
P7551- 7
P7551- 8
1 BV (BH)
2 BT
3 BL
4 BU
5 BS2
6 SYNC Ⓛ
7 AFC OUT
8 AFC IN
P7556
P7552- 1
P7552- 2
P7552- 3
P7552- 4
P7552- 5
P7552- 6
1 PCLR
2 BAND U
3 BAND VL
4 AFC DEF
5 P53
6 DAC
P7557
P7553 - 1
P7553 - 2
P7553 - 3
P7553 - 4
1 GND
2 REG 5V
3 REG 12.3V
4 REG 30V
P7554
P7507 - 1
P7507 - 2
P7507 - 3
1 P51
2 P52
3 P33
CH SELECT C. B. A.
(VEP07395A: NV-G21EG)
(VEP07395B: NV-G21B)
(VEP07395C: NV-G21EO/EV)
GND
UNREG −29V
REG 6V
BACK UP 5V
HEATER DC ⊕
HEATER DC ⊖
DAC
BUZZER
P7507
P51 1 P7554 - 1
P52 2 P7554- 2
P33 3 P7554- 3
P7801
P3003- 1
P3003- 2
P3003- 3
P3003- 4
P3003- 5
P3003- 6
P3003- 7
1 GND
2 VIDEO IN
3 SYSTEM CTL 5V
4 TUNER 12V
5 BACK UP 5V
6 GND
7 TUNER OFF Ⓗ
GND
P53
SERIAL CLOCK
SERIAL DATA
P32
AFC DEF
AUDIO DEF
BAND. VL
BAND. U
PCLR
P7506 (NV-G21EG/EO/EV)
CPU DATA 1 1
CPU DATA 2 2
CPU CLK 3
GND 4
P7802
1 CPU DATA 1
2 CPU DATA 2
3 CPU CLK
4 GND
VPS C.B.A.
(VEP07368C : NV-G21EG/EV)
(VW-VPS1/OPTION: NV-G21EO)
GND
P41
P20
P53
P7502
P20 1
P21 2
P22 3
P23 4
P32 5
P30 6
P33 7
P31 8
P40 9
P41 10
P42 11
P43 12
P 50 13
1 P20
2 P21
3 P22
4 P23
5 P32
6 P30
7 P33
8 P31
9 P40
10 P41
11 P42
12 P43
13 P50
RECEIVER C. B. A. VEP06380B
IER C. B. A.
EP07394A : NV-G21EG)
EP07394B : NV-G21B)
EP07394C : NV-G21EO/EV)
DOOR PANEL UNIT

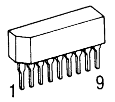
SPECIAL CHARACTERISTICS FOR SAFETY.
/ THE SAME TYPE.

10 11 12 13

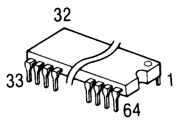
Next Page:
ICs & TRs INFORMATION Section

3-59. ICs & TRs INFORMATION

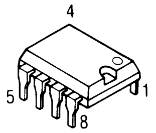
GENERAL CIRCUIT PARTS



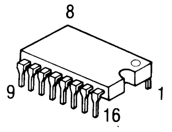
AN5421
AN6913



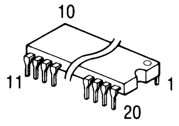
MN15362VJR
MN15283VJU



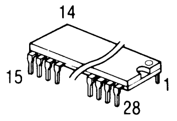
µPC393C
µPC358C
AN6552



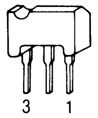
µPD4510BC
MN1220



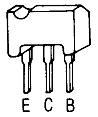
AN5034
AN3224K
AN5033



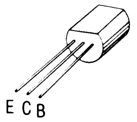
µPD6160CA
SAA5235



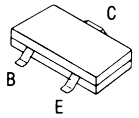
MN1280R
MN1280P



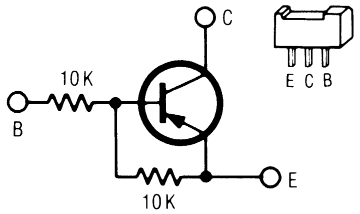
2SB643, 2SB641
2SB790, 2SC2206
2SD638, 2SB644
2SB636, 2SB642
2SD637, 2SD973



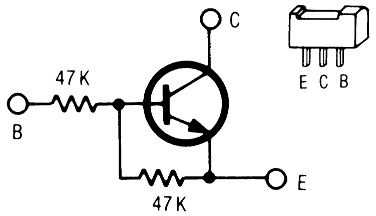
2SD893
2SC1384
2SC1047



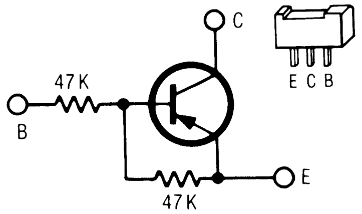
2SD601
2SC2295
2SB709
2SD1328


C
10K
B
E
10K
E C B

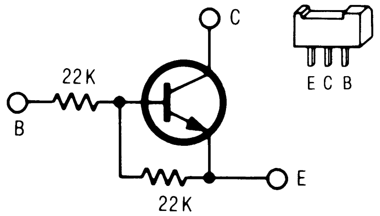
DTA114EA


C
47K
B
E
47K
E C B

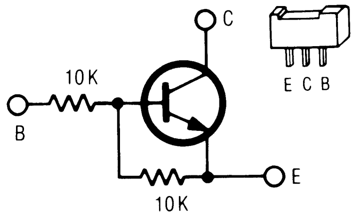
DTC144EA


C
47K
B
E
47K
E C B

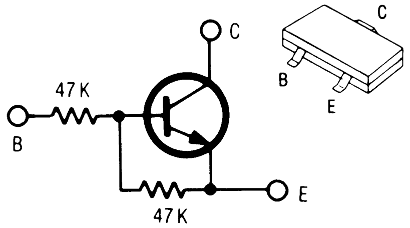
DTA144EA


C
22K
B
E
22K
E C B

DTC124EA

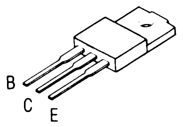

C
10K
B
E
10K
E C B

DTC114EA


C
47K
B
E
47K
C
B
E

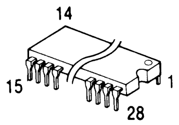
UN2213

SYSTEM CONTROL Section

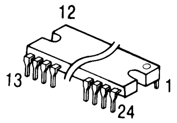


2SD1275

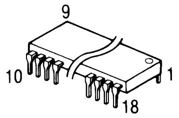
SERVO



MN15311VJC

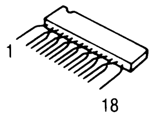


BA6430S



AN3812K

LUMINANCE & CHROMINANCE PACK



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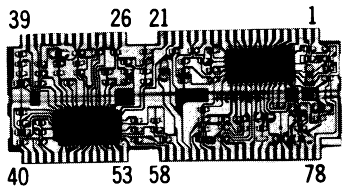
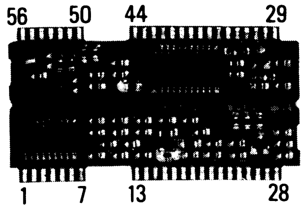
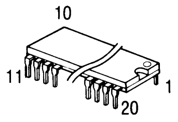

39
26
21
1
40
53
58
78

VEFY017

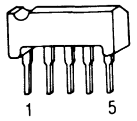

56
50
44
29
1
7
13
28

VEFC013

INPUT SELECT PACK

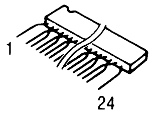


M5202P



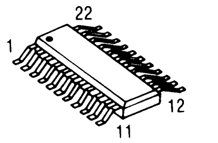
BA7004

AUDIO Section



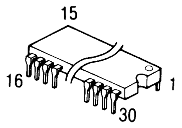
BA7752LS

HEAD AMP PACK

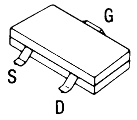


AN3311S

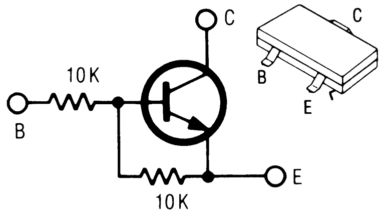
TV DEMODULATOR & TUNER ARU PACK



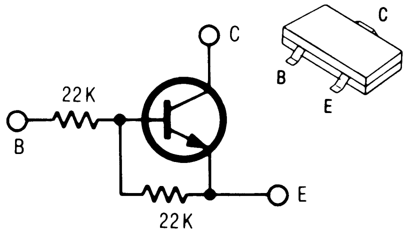
M51366SP



2SK198

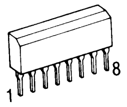

C
10K
B
E
10K
C
B
E

UN2211

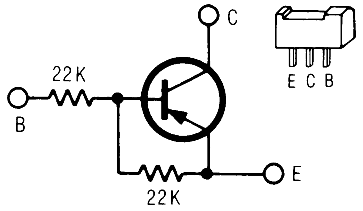

C
22K
B
E
22K
C
B
E

UN2212

TIMER

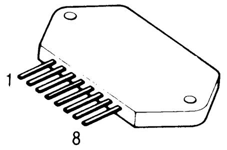


µPC1490HA

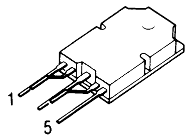

C
22K
B
E
22K
E C B

DTA124EA

POWER

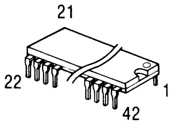


TSK5338

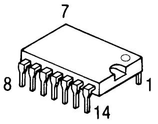


STR10006C

VPS

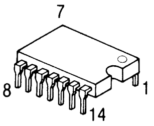


MN15834VEQ



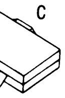
SAF1135P

CH SELECT



MN4066B

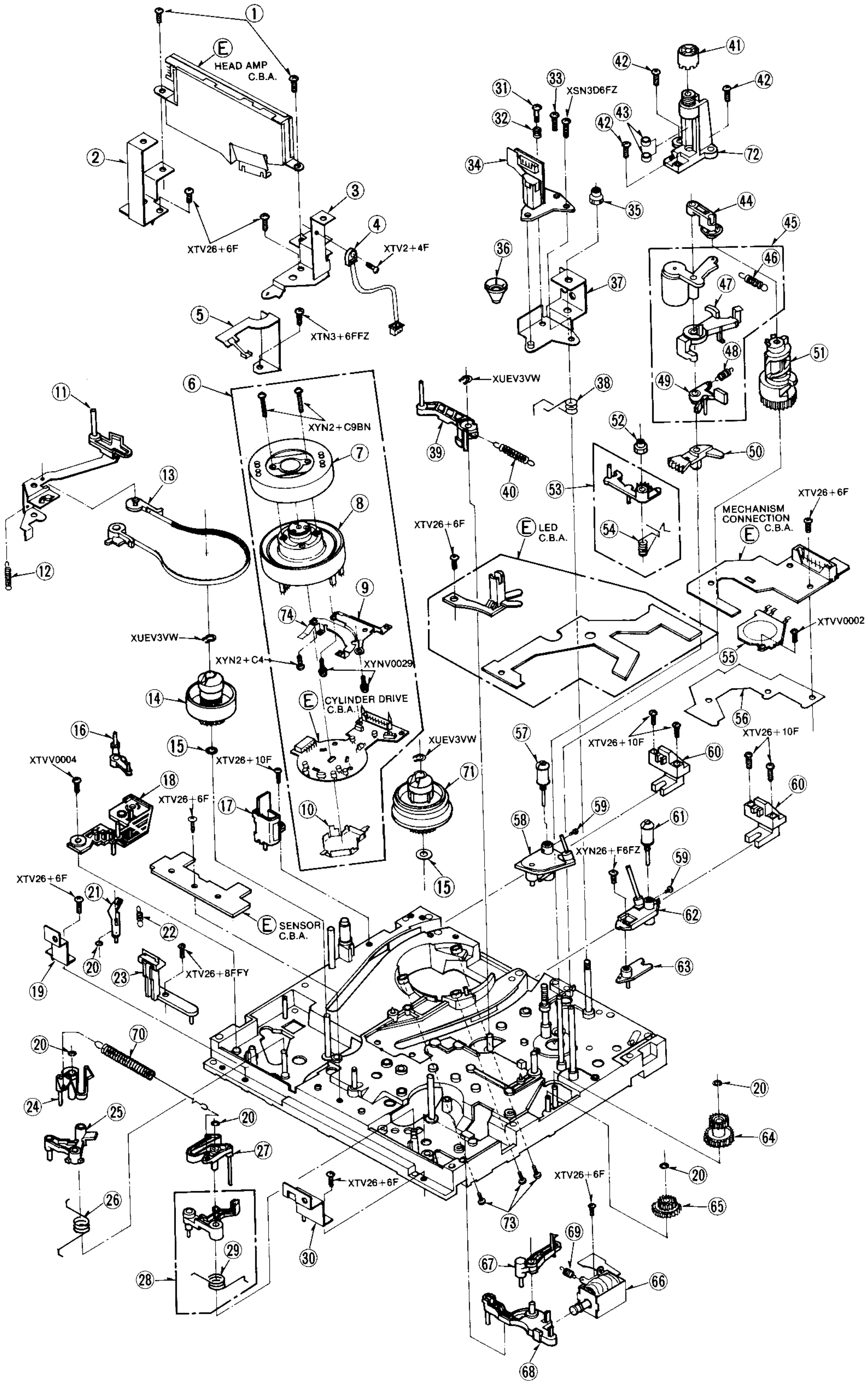
CK



SECTION 4
EXPLODED VIEW

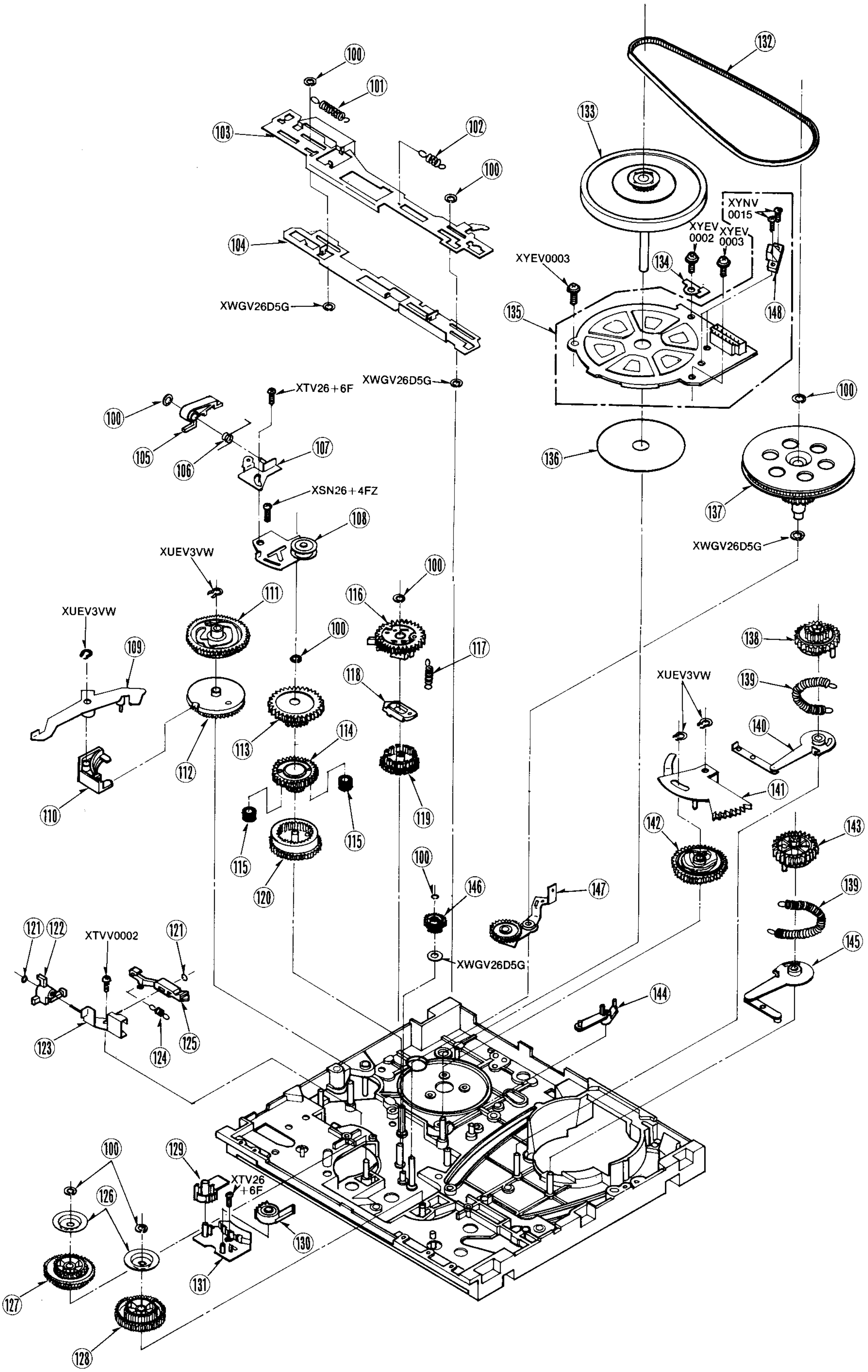
4-1. EXPLODED VIEW

❶ CHASSIS PARTS SECTION (1)

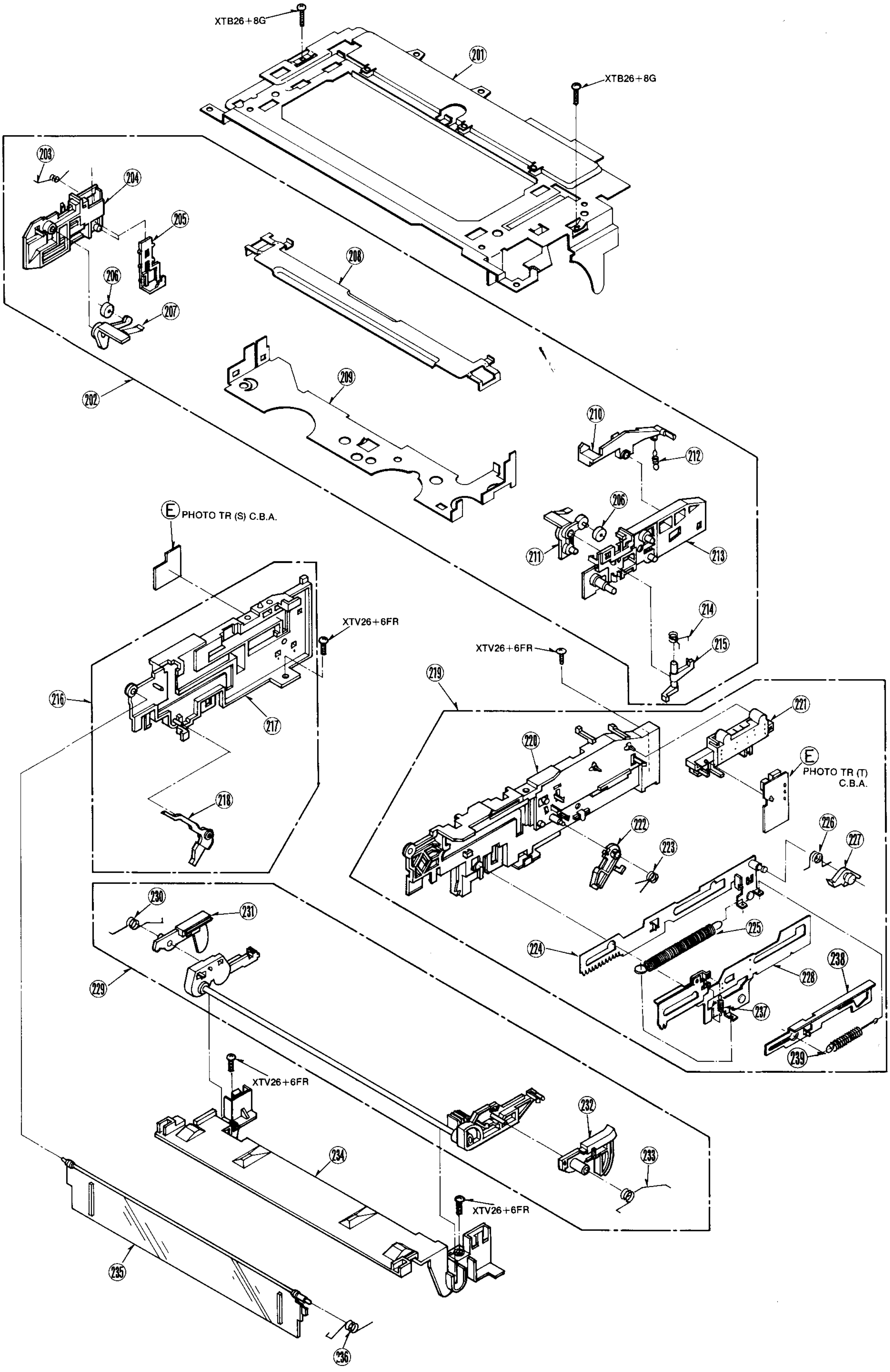


①
Ⓔ HEAD AMP C.B.A.
②
③
④
XTV2+4F
XTV26+6F
⑤
XTN3+6FFZ
⑥
XYN2+C9BN
⑦
⑧
⑨
74
XYN2+C4
XYNV0029
Ⓔ CYLINDER DRIVE C.B.A.
⑩
⑪
⑫
⑬
XUEV3VW
⑭
⑮
⑯
XTVV0004
⑰
XTV26+10F
⑱
XTV26+6F
Ⓔ SENSOR C.B.A.
XTV26+6F
⑲
⑳
㉑
㉒
㉓
XTV26+8FFY
70
㉔
㉕
㉖
㉗
㉘
㉙
㉚
XTV26+6F
㉛
㉜
㉝
XSN3D6FZ
㉞
㉟
㊱
㊲
㊳
XUEV3VW
㊴
㊵
㊶
㊷
㊸
72
㊹
㊺
㊻
㊼
㊽
㊾
㊿
(51)
(52)
(53)
(54)
Ⓔ LED C.B.A.
XTV26+6F
MECHANISM CONNECTION Ⓔ C.B.A.
XTV26+6F
XTVV0002
(55)
(56)
XTV26+10F
(57)
XTV26+10F
(60)
(60)
(58)
(59)
(61)
XYN26+F6FZ
(59)
XUEV3VW
(71)
⑮
(62)
(63)
⑳
(64)
⑳
(65)
XTV26+6F
(73)
(69)
(67)
(66)
(68)

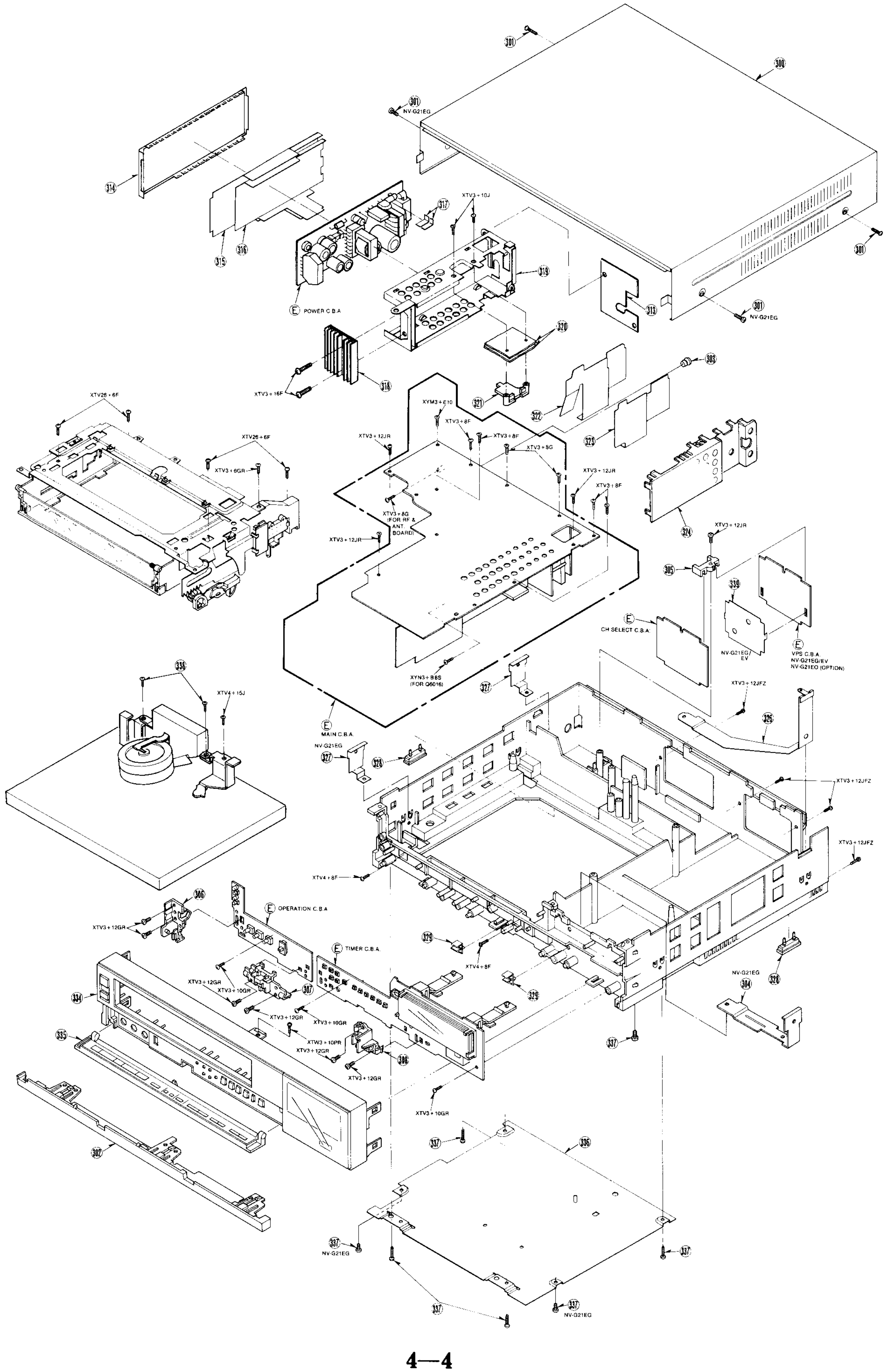
❷ CHASSIS PARTS SECTION (2)


132
100
101
103
102
133
100
XYNV 0015
XYEV 0002
XYEV 0003
XYEV0003
104
134
148
135
XWGV26D5G
XWGV26D5G
XTV26+6F
100
100
105
106
107
136
137
XSN26+4FZ
XWGV26D5G
108
XUEV3VW
100
111
116
XUEV3VW
109
100
117
138
118
XUEV3VW
139
140
113
114
112
110
141
119
115
115
142
143
120
100
146
147
139
121
122
XTVV0002
121
XWGV26D5G
145
144
123
125
124
100
129
XTV26 +6F
126
130
131
127
128

❸ CASSETTE UP MECHANISM SECTION


XTB26+8G
201
XTB26+8G
203
204
205
206
207
208
202
209
210
212
206
211
213
214
215
E
PHOTO TR (S) C.B.A.
XTV26+6FR
XTV26+6FR
216
217
219
221
220
E
PHOTO TR (T) C.B.A.
218
222
223
226
227
230
231
225
224
228
238
229
237
239
XTV26+6FR
232
234
233
XTV26+6FR
235
236

❹ CASING PARTS SECTION


301
300
301
NV-G21EG
314
315
316
317
XTV3 + 10J
319
E POWER C.B.A
313
301
301
NV-G21EG
320
318
XTV3 + 16F
303
321
322
323
XTV26 + 6F
XTV26 + 6F
XTV3 + 6GR
XYM3 + E10
XTV3 + 8F
XTV3 + 8F
XTV3 + 12JR
XTV3 + 8G
XTV3 + 12JR
XTV3 + 8F
XTV3 + 8G
(FOR RF &
ANT.
BOARD)
XTV3 + 12JR
324
XTV3 + 12JR
305
339
E CH SELECT C.B.A.
NV-G21EG/
EV
E VPS C.B.A.
NV-G21EG/EV
NV-G21EO (OPTION)
XYN3 + B8S
(FOR Q6016)
338
XTV4 + 15J
327
XTV3 + 12JFZ
326
E MAIN C.B.A.
NV-G21EG
327
328
XTV3 + 12JFZ
XTV3 + 12JFZ
XTV4 + 8F
306
E OPERATION C.B.A
XTV3 + 12GR
E TIMER C.B.A.
329
XTV4 + 8F
XTV3 + 12GR
XTV3 + 10GR
307
334
XTV3 + 12GR
XTV3 + 10GR
329
NV-G21EG
304
328
XTW3 + 10PR
XTV3 + 12GR
335
308
XTV3 + 12GR
337
XTV3 + 10GR
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302
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NV-G21EG
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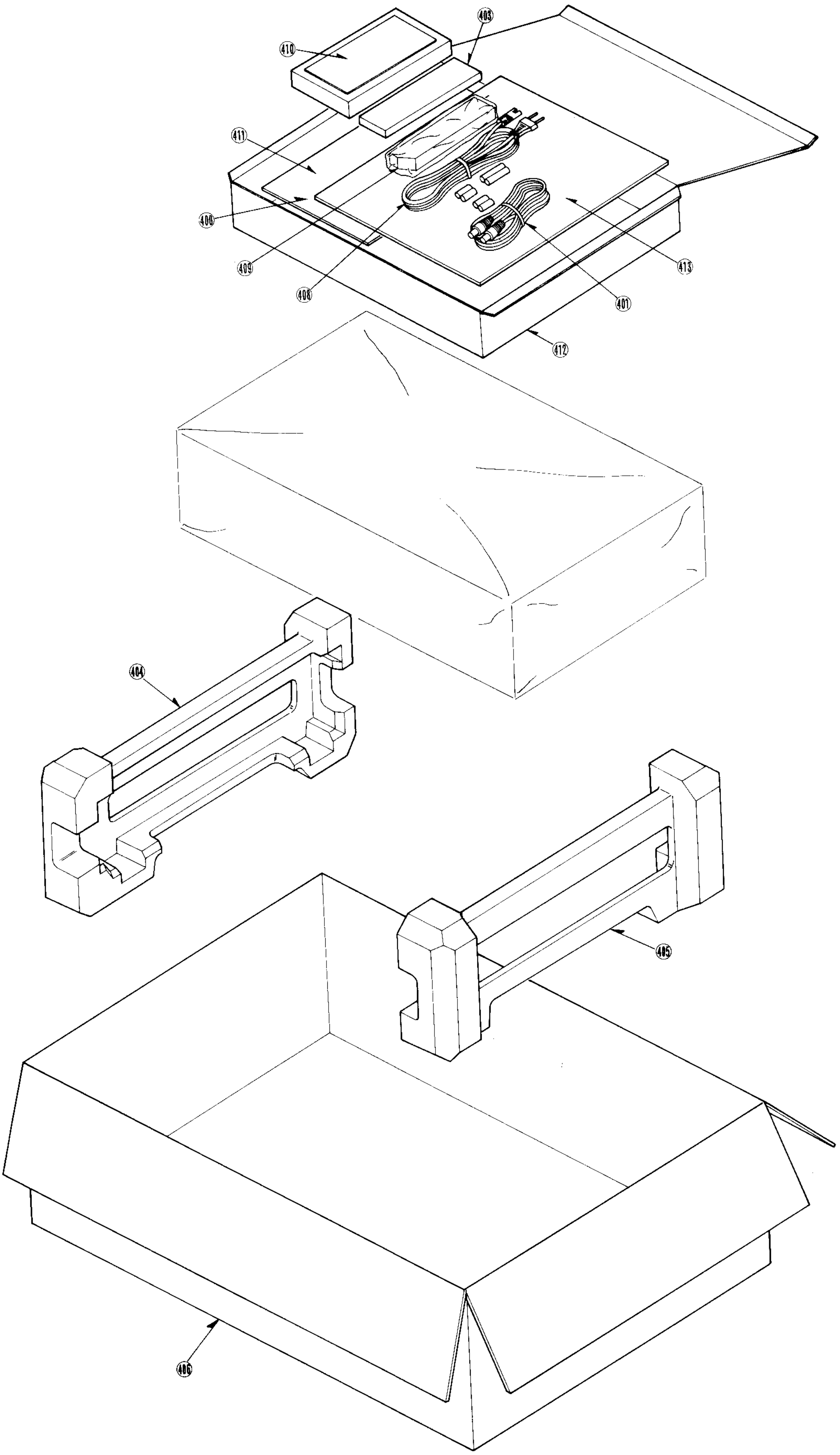
NV-G21EG

❺ PACKING PARTS SECTION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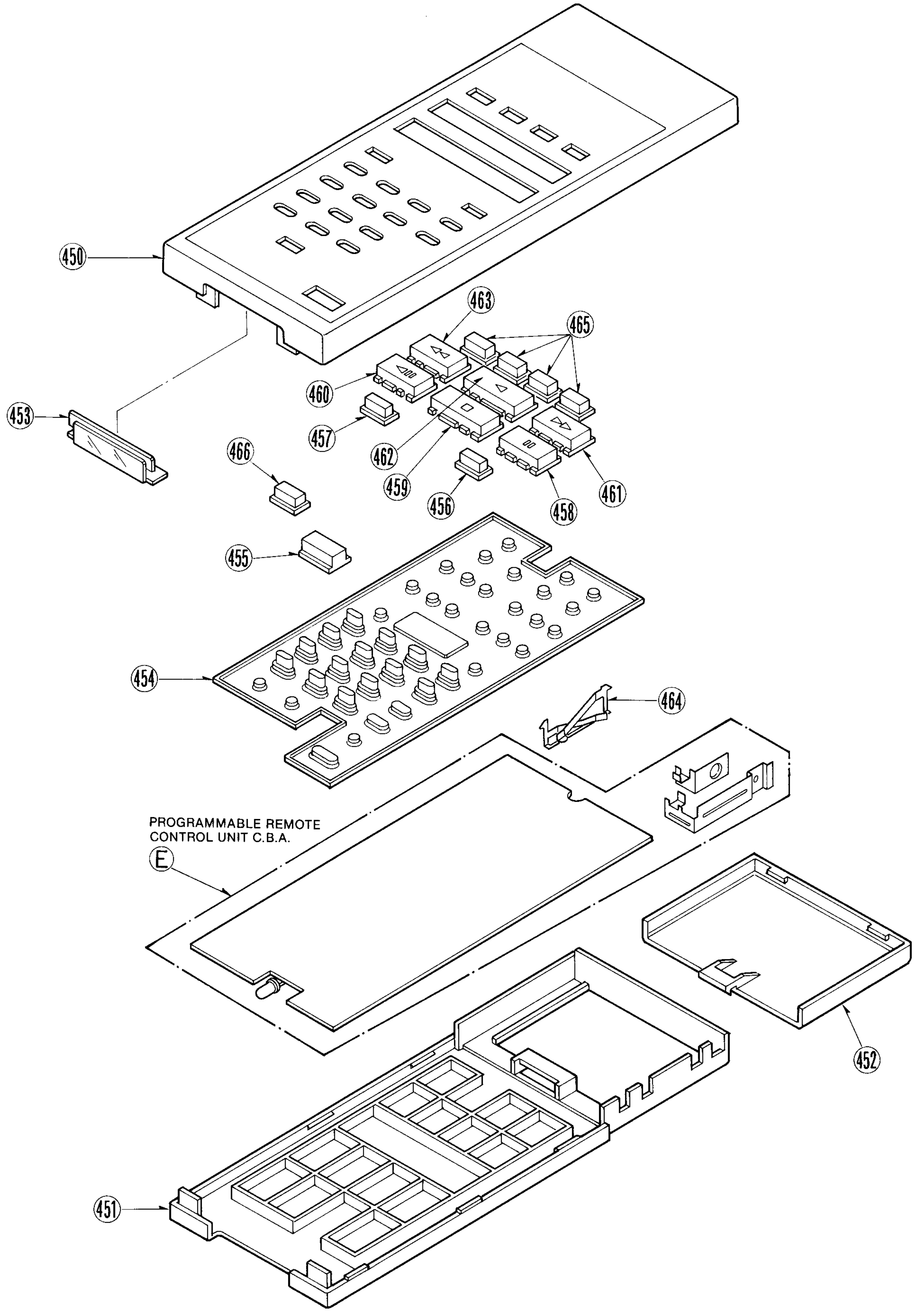
❻ PROGRAMMABLE REMOTE CONTROL UNIT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PROGRAMMABLE REMOTE CONTROL UNIT C.B.A.
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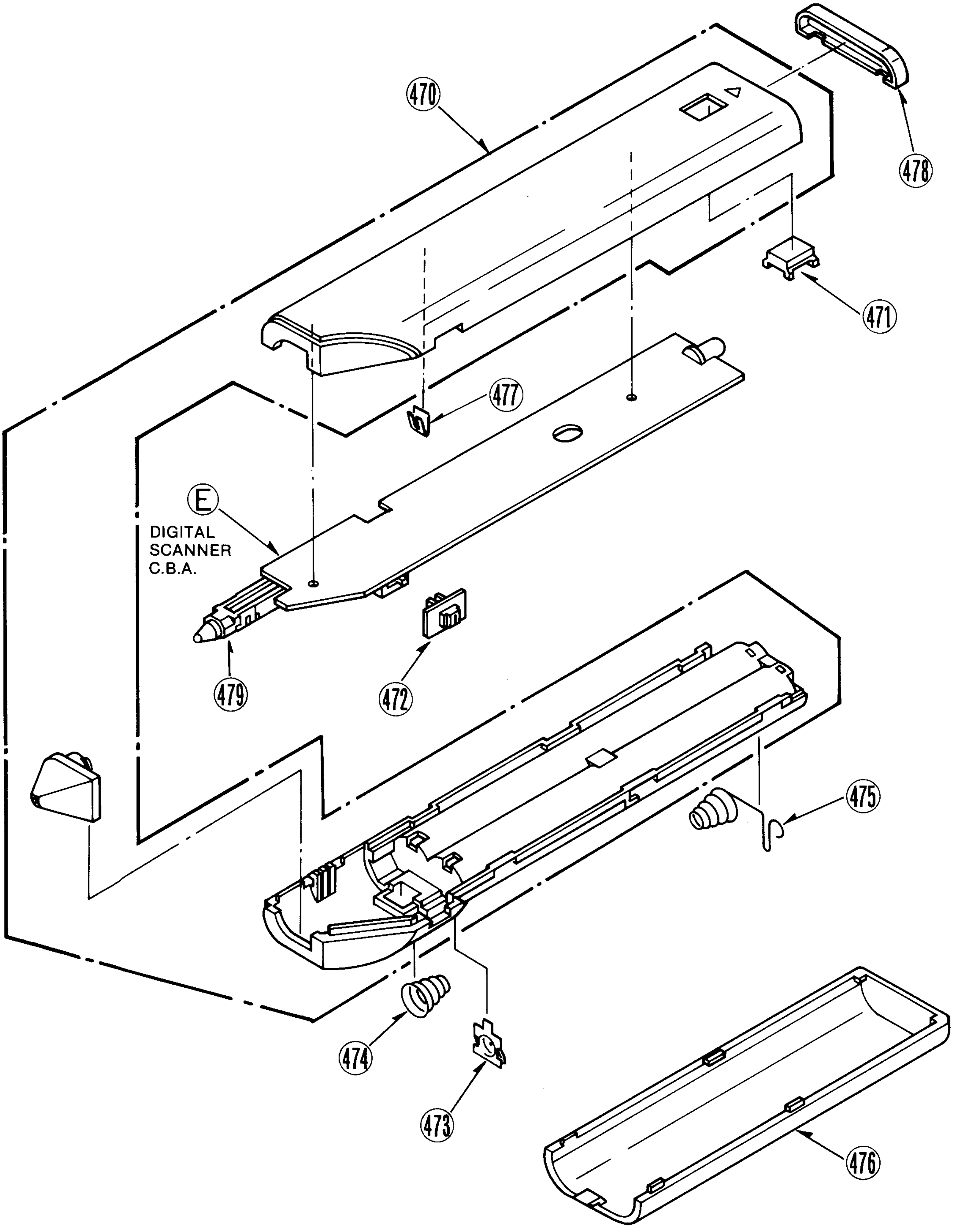
❼ DIGITAL SCANNER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ORDER NO. VRD8701104A
(Date of issue: JAN, 1987)

PARTS LIST

MODEL NO: NV-G21EG/B/EO/EV

※This parts list is
detachable from the manual.

1.NV-G21EG/B/EO/EV Mechanical Replacement Parts List

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VHD0268	HEAD AMP SET SCREW	3	
2(1)		VMA6897	HEAD AMP MOUNT ANGLE (L)	1	
3(1)		VMA6898	HEAD AMP MOUNT ANGLE (R)	1	
4(1)		VEK3185	DEW SENSOR UNIT	1	
5(1)		VXA2702	EARTH PLATE UNIT	1	
6(1)		VEG0479	CYLINDER UNIT	1	<!>
7(1)		VEH0343	UPPER CYLINDER UNIT	1	
9(1)		VXA2703	MAIN HOLDER UNIT	1	
10(1)		VSC1806	CYLINDER C.B.A SHIELD PLATE	1	
11(1)		VXL1495	TENSION ARM (1) UNIT	1	
12(1)		VMB1563	TENSION SPRING	1	
13(1)		VXZ0225	TENSION BAND UNIT	1	
14(1)		VXR0145	SUPPLY REEL TABLE UNIT	1	
15(1)		VMX1171	REEL WASHER	2	
16(1)		VXL1496	TENSION RELEASE ARM(A)UNIT	1	
17(1)		VBS0038	FE HEAD	1	
18(1)		VXA2705	TENSION ARM BASE (1) UNIT	1	
19(1)		VMA6895	MOUNT ANGLE (L)	1	
20(1)		VMX1079	CUT WASHER	5	
21(1)		VXL1497	TENSION RELEASE ARM(B)UNIT	1	
22(1)		VMB1582	TENSION RELEASE SPRING	1	
23(1)		VES0350	SAFETY SW	1	
24(1)		VXZ0229	SUPPLY MAIN BRAKE UNIT	1	
25(1)		VXZ0228	SUPPLY SOFT BRAKE(1)UNIT	1	
26(1)		VMB1564	SUPPLY SOFT BRAKE SPRING	1	
27(1)		VXZ0231	TAKE UP MAIN BRAKE UNIT	1	
28(1)		VXZ0221	TAKE UP SOFT BRAKE UNIT	1	
29(1)		VMB1561	TAKE UP SOFT BRAKE SPRING	1	
30(1)		VMA6896	MOUNT ANGLE (R)	1	
31(1)		VHD0322	ADJUST SCREW	1	
32(1)		VMB1251	ADJUST SPRING	1	
33(1)		VHD0089B	AZIMUTH ADJUST SCREW	1	
34(1)		VBR0112	A/C HEAD	1	
35(1)		VHN0063	M4 NYLON NUT	1	
36(1)		VHN0050	ADJUST NUT	1	
37(1)		VXA2675	HEAD BASE UNIT	1	
38(1)		VMB1567	A/C HEAD SPRING	1	
39(1)		VXL1480	SUB LOADING ARM (1) UNIT	1	
40(1)		VMB1566	SUB POST SPRING	1	
41(1)		VXQ0006	THRUST SCREW UNIT	1	
42(1)		VHD0317	HOUSING SCREW	3	
43(1)		VMX1033	OIL SEAL	2	
44(1)		VMX1078	PINCH CAM CAP	1	
45(1)		VXL1481	PRESSURE ROLLER UNIT	1	
46(1)		VMB1568	PIN PRESSURE SPRING	1	
47(1)		VML1873	PINCH PRESSURE ARM	1	
48(1)		VMB1569	PINCH PRESSURE ARM RELEASE	1	
			SPRING		
49(1)		VML1874	PINCH LIFT ARM	1	
50(1)		VDG0357	P5 PULL OUT SECTOR GEAR	1	
51(1)		VDG0356	PINCH CAM	1	
52(1)		VHN0023	M3 NYLON NUT	1	
53(1)		VXL1485	P5 UNIT	1	
54(1)		VMB1554	P5 SPRING	1	
55(1)		VSS0175A	MODE SW	1	
56(1)		VSC1851	SHIELD PLATE	1	
57(1)		VXP0764B	ROLLER POST UNIT	1	
58(1)		VXA2729	INCLIND BASE (S)(1)UNIT	1	
59(1)		VHD0133	ROLLER POST SCREW	2	
60(1)		VMD0910	POST STOPPER	2	
61(1)		VXP0764A	ROLLER POST UNIT	1	
62(1)		VXA2686	INCLIND BASE(T)(1)UNIT	1	
63(1)		VXA2687	INCLIND ADJUST PLATE UNIT	1	
64(1)		VDG0334	PINCH SPEED DOWN GEAR	1	
65(1)		VDG0332	CONNECTION GEAR	1	
66(1)		VXA2693	SOLENOID	1	
67(1)		VXA2692	KICK ROD UNIT	1	
68(1)		VXA2691	SOLENOID LEVER (1) UNIT	1	
69(1)		VMB1553	KICK ROD SPRING	1	
70(1)		VMB1565	MAIN BRAKE SPRING	1	
71(1)		VXR0146	TAKE UP REEL TABLE UNIT	1	
72(1)		VXD0101	HOUSING UNIT	1	
73(1)		VHD0342	CYLINDER UNIT MOUNT SCREW	3	
74(1)		VSC1843	HEAT SINK PLATE	1	
100(2)		VMX1079	CUT WASHER	8	
101(2)		VMB1583	TAKE UP SOFT BRAKE RELEASE	1	
			ARM SPRING		
102(2)		VMB1560	MAIN LEVER SPRING	1	
103(2)		VXA2701	MAIN LEVER (1) UNIT	1	
104(2)		VMM0160	SUB LEVER	1	
105(2)		VXL1500	SS BRAKE ARM UNIT	1	
106(2)		VMB1588	SS BRAKE SPRING	1	
107(2)		VXA2707	SS BRAKE BASE (1) UNIT	1	
108(2)		VXA2674	TENSION ROLLER UNIT	1	
109(2)		VXL1491	CAM FOLLOWER ARM UNIT	1	
110(2)		VML1861	DETENT ARM	1	
111(2)		VDG0346	MAIN CAM GEAR	1	
112(2)		VDG0343	SUB CAM GEAR	1	
113(2)		VDG0348	CENTRE GEAR	1	
114(2)		VDG0344	RETAINER GEAR	1	
115(2)		VDG0345	PLANET GEAR	2	
116(2)		VDG0349	CLUTCH DISK	1	
117(2)		VMB1558	CLUTCH SPRING	1	
118(2)		VDG0350	LOCK SLIDE GEAR	1	
119(2)		VDG0335	DRIVE DISK	1	
120(2)		VDG0342	RING GEAR	1	
121(2)		VMX0967	CUT WASHER	2	
122(2)		VML1859	CHANGE LEVER	1	
123(2)		VXA2672	RELEASE LEVER (1) UNIT	1	
124(2)		VMB1557	RELEASE SPRING	1	
125(2)		VML1860	RELEASE LEVER	1	
126(2)		VMX1124	REEL GEAR RING	2	
127(2)		VXP0779	TAKE UP REEL GEAR UNIT	1	
128(2)		VDG0337	SUPPLY REEL GEAR	1	
129(2)		VML1858	RETURN LEVER (R)	1	
130(2)		VML1857	RETURN LEVER (L)	1	
131(2)		VMD0913	STOPPER BASE	1	
132(2)		VDV0159	TIMING BELT	1	
133(2)		VXP0777	ROTOR UNIT	1	
134(2)		VMA6998	ROTOR STOPPER	1	
135(2)		VEK2944	STATOR UNIT	1	<!>
136(2)		VMA6847	SUB PLATE	1	
137(2)		VXP0769	CENTRE PULLEY UNIT	1	
138(2)		VDG0340	LOADING GEAR (T)	1	
139(2)		VMB1555	LOADING SPRING	2	
140(2)		VXL1489	LOADING ARM (T)(1) UNIT	1	
141(2)		VXA2673	SECTOR GEAR UNIT	1	
142(2)		VDG0347	LOADING CAM GEAR	1	
143(2)		VDG0339	LOADING GEAR (S)	1	
144(2)		VML1855	PLAY CONTROL ARM	1	
145(2)		VXL1487	LOADING ARM (S)(1) UNIT	1	
146(2)		VDG0336	INTERMEDIATE GEAR	1	
147(2)		VXL1490	PLAY ARM UNIT	1	
148(2)		VBK0048	FG HEAD	1	
201(3)		VMA6903	TOP PLATE	1	
202(3)		VXA2679	CASSETTE HOLDER UNIT	1	
203(3)		VMB1573	MOUNT LEVER SPRING	1	
204(3)		VMD0919	HOLDER GUIDE (L)	1	
205(3)		VMM0163	MOUNT LEVER	1	
206(3)		VDP1077	ROLLER	2	
207(3)		VML1883	PRESSURE LEVER (L)	1	
208(3)		VMA6902	HOLDER ANGLE	1	
209(3)		VMA6901	CASSETTE HOLDER	1	
210(3)		VML1882	OPENER LEVER	1	
211(3)		VML1884	PRESSURE LEVER (R)	1	
212(3)		VMB1584	OPENER LEVER SPRING	1	
213(3)		VMD0920	HOLDER GUIDE (R)	1	
214(3)		VMB1576	RELEASE SPRING	1	
215(3)		VML1881	RELEASE LEVER	1	
216(3)		VXA2676	SIDE PLATE (L) UNIT	1	
217(3)		VMD0917	SIDE PLATE (L)	1	
218(3)		VML1880	OPENER LEVER	1	
219(3)		VXA2677	SIDE PLATE (R) UNIT	1	
220(3)		VMD0918	SIDE PLATE (R)	1	
221(3)		VSS0176	SLIDE SW	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
222(3)		VML1886	DOWN SUPPORT LEVER	1	
223(3)		VMB1575	DOWN SUPPORT SPRING	1	
224(3)		VXA2695	RACK (A)(1) UNIT	1	
225(3)		VMB1572	CLUTCH SPRING	1	
226(3)		VMB1574	LOCK SPRING	1	
227(3)		VML1885	LOCK LEVER	1	
228(3)		VXA2829	RACK (B) UNIT	1	
229(3)		VXP0851	MAIN SHAFT UNIT	1	
230(3)		VMB1570	SUB WIPER SPRING (L)	1	
231(3)		VML1878	SUB WIPER ARM	1	
232(3)		VML1879	SUB WIPER ARM (R)	1	
233(3)		VMB1571	SUB WIPER SPRING (R)	1	
234(3)		VMA6900	CASSETTE GUIDE	1	
235(3)		VKF0848	BLINDER PANEL	1	
236(3)		VMB1258	BLINDER SPRING	1	
237(3)		VMB1650	RACK (C) SPRING	1	
238(3)		VMA7062	CONNECTION ROD	1	
239(3)		VMB1686	CONNECTION ROD	1	
300(4)		VYP1891	TOP PANEL UNIT	1	NV-G21EG (BLACK)
300(4)		VYP1892	TOP PANEL UNIT	1	NV-G21EG (SILVER)
300(4)		VYP1895	TOP PANEL UNIT	1	NV-G21B/EO/EV (BLACK)
300(4)		VYP1896	TOP PANEL UNIT	1	NV-G21EO/EV (SILVER)
301(4)		VHD0304	TOP PANEL SCREW	4	NV-G21EG (BLACK)
301(4)		VHD0305	TOP PANEL SCREW	4	NV-G21EG (SILVER)
301(4)		VHD0304	TOP PANEL SCREW	2	NV-G21B/EO/EV (BLACK)
301(4)		VHD0305	TOP PANEL SCREW	2	NV-G21EO/EV (SILVER)
302(4)		VYP1803	FRONT LOWER PANNEL	1	
303(4)		VMG0272	RF CONVERTER BUSHING	1	
304(4)		VMP1125	TOP HOLDER ANGLE	1	NV-G21EG
305(4)		VGQ1160	C.B. HOLDER	1	
306(4)		VGQ1084	HOLDER (A)	1	
307(4)		VGQ1085	HOLDER (B)	1	
308(4)		VGQ1086	HOLDER (C)	1	
313(4)		VGH1127	POWER NAME PLATE	1	
314(4)		VSC1827	SHIELD CASE (L)	1	
315(4)		VMZ0916	BARRIER (B)	1	<!>
316(4)		VMZ0902	BARRIER (A)	1	<!>
317(4)		VMZ0948	BARRIER (E)	1	<!>
318(4)		VSC1830	HEAT SINK	1	
319(4)		VSC1924	SHIELD CASE MAIN	1	
320(4)		VMZ0876	INSULATION SHEET	2	<!>
321(4)		VGQ1109	TR. HOLDER	1	
322(4)		VMZ0917	BARRIER (C)	1	<!>
323(4)		VMZ0918	BARRIER (D)	1	<!>
324(4)		VSC1829	SHIELD CASE (R)	1	
326(4)		VMP1038	TOP HOLDER ANGLE (R)	1	
327(4)		VMP1037	TOP HOLDER ANGLE (L)	2	NV-G21EG
327(4)		VMP1037	TOP HOLDER ANGLE (L)	1	NV-G21B/EO/EV
328(4)		VKA0026	RUBBER FOOT	2	
329(4)		VJF0285	WIRE SUDDLE	2	
334(4)		VYP1879	FRONT PANEL UNIT	1	NV-G21EG/EO/EV (BLACK)
334(4)		VYP1880	FRONT PANEL UNIT	1	NV-G21EG/EO/EV (SILVER)
334(4)		VYP1883	FRONT PANEL UNIT	1	NV-G21B
335(4)		VYF1025	FRONT DOOR UNIT	1	NV-G21EG/EO/EV (BLACK)
335(4)		VYF1026	FRONT DOOR UNIT	1	NV-G21EG/EO/EV (SILVER)
335(4)		VYF1035	FRONT DOOR UNIT	1	NV-G21B
336(4)		VKU0245	BOTTOM PLATE	1	
337(4)		VHD0059	BOTTOM SCREW	7	NV-G21EG
337(4)		VHD0059	BOTTOM SCREW	5	NV-G21B/EO/EV
338(4)		VHD0268	SCREW	2	
339(4)		VMZ1005	BARRIER	1	NV-G21EG/EV
400(5)		VQT2203	OPERATING INSTRUCTIONS	1	NV-G21EG/EO/EV (ENGLISH,GARMAN, FRENCH) <!>
400(5)		VQT2206	OPERATING INSTRUCTIONS	1	NV-G21B(ENGLISH) <!>
400(5)		VQT2204	OPERATING INSTRUCTIONS	1	NV-G21EO(SWEDISH, DANISH,DUTCH) <!>
400(5)		VQT2205	OPERATING INSTRUCTIONS	1	NV-G21EO(FINNISH, ITALIAN,SPANISH) <!>
401(5)		VJA0376	DIN RF CABLE	1	
403(5)		VEQ0534	REMOTE CONTROL UNIT	1	NV-G21EG/EO/EV
403(5)		VEQ0539	REMOTE CONTROL UNIT	1	NV-G21B
404(5)		VPN1709	CUSHION (R)	1	
405(5)		VPN1710	CUSHION (L)	1	
406(5)		VPG3309	PACKING CASE	1	NV-G21EG(BLACK)
406(5)		VPG3310	PACKING CASE	1	NV-G21EG(SILVER)
406(5)		VPG3315	PACKING CASE	1	NV-G21B
406(5)		VPG3311	PACKING CASE	1	NV-G21EO(BLACK)
406(5)		VPG3312	PACKING CASE	1	NV-G21EO(SILVER)
406(5)		VPG3313	PACKING CASE	1	NV-G21EV(BLACK)
406(5)		VPG3314	PACKING CASE	1	NV-G21EV(SILVER)
408(5)		VJA0391	AC CORD	1	NV-G21EG <!>
408(5)		VJA0389	AC CORD	1	NV-G21B <!>
408(5)		VJA0388	AC CORD	1	NV-G21EO/EV <!>
409(5)		VEQ0549	DIGITAL SCANNER	1	NV-G21EG/EO/EV
409(5)		VEQ0540	DIGITAL SCANNER	1	NV-G21B
410(5)		VQC1010	PROGRAMME SHEET	1	NV-G21EG/EO/EV
410(5)		VQC1009	PROGRAMME SHEET	1	NV-G21B
411(5)		VQT2237	OPERATING INSTRUCTIONS (DIGITAL SCANNER)	1	NV-G21EG/EO/EV <!>
411(5)		VQT2238	OPERATING INSTRUCTIONS (DIGITAL SCANNER)	1	NV-G21B <!>
412(5)		VPK0688	ACCESSORIES PACKING CASE	1	
413(5)		VPN1822	ACCESSORIES CUSHION	1	
450(6)		VYK1589	TOP CASE UNIT	1	NV-G21EG/EO/EV
450(6)		VYK1596	TOP CASE UNIT	1	NV-G21B
451(6)		VKM0843	BOTTOM CASE	1	
452(6)		VKF0824	BATTERY COVER	1	
453(6)		VKW0758	IR WINDOW	1	
454(6)		VSP0246	RUBBER CONTACT	1	NV-G21EG/EO/EV
454(6)		VSP0267	RUBBER CONTACT	1	NV-G21B
455(6)		VGU3406	POWER BUTTON	1	
456(6)		VGU3407	REC BUTTON (RED)	1	
457(6)		VGU3408	REC BUTTON (BLACK)	1	
458(6)		VGU3403	STILL BUTTON	1	
459(6)		VGU3410	STOP BUTTON	1	
460(6)		VGU3404	STILL ADV BUTTON	1	
461(6)		VGU3412	REW BUTTON	1	
462(6)		VGU3409	PLAY BUTTON	1	
463(6)		VGU3411	FF BUTTON	1	
464(6)		VJR0229	ELECTRODE (COMMON)	1	
465(6)		VGU2274	CH BUTTON	4	
466(6)		VGU3628	TIMER REC BUTTON	1	
470(7)		VYK1628	CASE UNIT	1	NV-G21EG/EO/EV
470(7)		VYK1626	CASE UNIT	1	NV-G21B
471(7)		VGU3710	TRANSM1SSON BUTTON	1	
472(7)		VGU3709	POWER SW KNOB	1	
473(7)		VJR0270	ELECTRODE (A)	1	
474(7)		VJR0271	ELECTRODE (B)	1	
475(7)		VJR0272	ELECTRODE (C)	1	
476(7)		VKF0900	BATTERY COVER	1	
477(7)		VMB1691	SUPPRT ANGLE	1	
478(7)		VKW0772	SMOKE FILTER	1	
479(7)		VSQ0533	SENSOR UNIT	1	
			JIG		
		VFJ8125H3F	VHS-ALIGNMENT TAPE(PAL)	1	
		VFK0335	RETAINING RING REMOVER (3mm/4mm)	1	
		VFK0387	TENSION POST ADJUSTMENT PLATE	1	
		VFK0191	POST ADJUSTMENT PLATE	1	
		VFK0190	REEL TABLE HEIGHT GAUGE	1	
		VFK0328	H-POSITION ADJ. SCREWDRIVER	1	
		VFK0329	POST ADJUSTMENT SCREWDRIVER	1	
		VFK62	FAN TYPE TENSION GAUGE	1	
		VFK0326	HEX WRENCH SET	1	
		VFK0132	BACK TENSION METER	1	
		VFK0343	CHECK LIGHT	1	
		VFK0344	HEIGHT ADJUSTMENT JIG	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLYTONE GREASE	1	
		VFK0283	SERVICE ALIGNMENT TOOL KIT	1	
		VFK0341	UPPER CYLINDER REMOVER	1	

2.NV-G21EG/B/EO/EV Electrical Replacement Parts List

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.
4.The P.C.Board units marked width'■'show below the main assembled parts.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP03440A	MAIN C.B.A.	1	INCLUDING THE SERVO
			(SYSTEM COMTROL,SERVO,		PACK C.B.A.
			LUMINANCE & CHROMINANCE,		(VEP02266A),SUB
			AUDIO,POWER,DEMODULATOR,		SERVO (1) PACK C.B.A
			TUNER,INPUT SELECT,BUZZER)		(VEP02281A),SUB
					SERVO (2) PACK C.B.A
					(VEP02282A),
					LUMINANCE &
					CHROMINANCE PACK
					C.B.A.(VEP03381A),
					SECAM PACK C.B.A.
					(VEP03382A),INPUT
					SELECT PACK C.B.A.
					(VEP03430A),SUB INPUT
					SELECT PACK C.B.A.
					(VEP03431A),TV
					DEMODULATOR PACK
					C.B.A.(VEP07374A),
					TUNER ARU PACK
					C.B.A.(VEP07375A)
					BUZZER PACK C.B.A.
					(VEP00H50A)
					NV-G21EG<!><R>
		VEP03440C	MAIN C.B.A.	1	INCLUDING THE SERVO
			(SYSTEM COMTROL,SERVO,		PACK C.B.A.
			LUMINANCE & CHROMINANCE,		(VEP02266A),SUB
			AUDIO,POWER,DEMODULATOR,		SERVO (1) PACK C.B.A
			TUNER,INPUT SELECT,BUZZER)		(VEP02281A),SUB
					SERVO (2) PACK C.B.A
					(VEP02282A),
					LUMINANCE &
					CHROMINANCE PACK
					C.B.A.(VEP03381B),
					INPUT SELECT PACK
					C.B.A.(VEP03432A),
					TV DEMODULATOR PACK
					C.B.A. (VEP07376A),
					TUNER ARU PACK
					C.B.A.(VEP07373A)
					BUZZER PACK C.B.A.
					(VEP00H50A)
					NV-G21B<!><R>
		VEP03440B	MAIN C.B.A.	1	INCLUDING THE SERVO
			(SYSTEM COMTROL,SERVO,		PACK C.B.A.
			LUMINANCE & CHROMINANCE,		(VEP02266A),SUB
			AUDIO,POWER,DEMODULATOR,		SERVO (1) PACK C.B.A
			TUNER,INPUT SELECT,BUZZER)		(VEP02281A),SUB
					SERVO (2) PACK C.B.A
					(VEP02282A),
					LUMINANCE &
					CHROMINANCE PACK
					C.B.A.(VEP03381B),
					INPUT SELECT PACK
					C.B.A.(VEP03430B),
					SUB INPUT SELECT PACK
					C.B.A.(VEP03431B),
					TV DEMODULATOR PACK
					C.B.A.(VEP07374B),
					TUNER ARU PACK
					C.B.A.(VEP07375B),
					BUZZER PACK C.B.A.
					(VEP00H50A)
					NV-G21EO/EV<!><R>
		VEP02266A	SERVO PACK C.B.A.	1	INCLUDING THE SUB

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
					SERVO (1) PACK C.B.A.
					(VEP02281A), SUB
					SERVO (2) PACK C.B.A.
					(VEP02282A) PART
					LIST IS INCLUDED IN
					MAIN C.B.A.
					(VEP03440A/B/C)
		VEP02281A	SUB SERVO (1) PACK C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03440A/B/C)
		VEP02282A	SUB SERVO (2) PACK C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03440A/B/C)
		VEP03381A	LUMINANCE & CHROMINANC	1	INCLUDING THE SECAM
			PACK C.B.A.		PACK C.B.A.
					(VEP03382A), PART
					LIST IS INCLUDED IN
					MAIN C.B.A.
					(VEP03440A) NV-G21E
		VEP03381B	LUMINANCE & CHROMINANC	1	PART LIST IS
			PACK C.B.A.		INCLUDED IN MAIN
					C.B.A.(VEP03440B/C)
					NV-G21B/EO/EV
		VEP03382A	SECAM PACK C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03440A)
					NV-G21EG
		VEP05097E	HEAD AMP PACK C.B.A.	1	
		VEP03430A	INPUT SELECT PACK C.B.A.	1	INCLUDING THE SUB
					INPUT SELECT PACK
					C.B.A.(VEP03431A)
					PART LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03440A)
					NV-G21EG
		VEP03432A	INPUT SELECT PACK C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03440C)
					NV-G21B
		VEP03430B	INPUT SELECT PACK C.B.A.	1	INCLUDING THE SUB
					INPUT SELECT PACK
					C.B.A.(VEP03431B)
					PART LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03440B)
					NV-G21EO/EV
		VEP03431A	SUB INPUT SELECT PACK	1	PART LIST IS
			C.B.A.		INCLUDED IN MAIN
					C.B.A.(VEP03440A)
					NV-G21EG
		VEP03431B	SUB INPUT SELECT PACK	1	PART LIST IS
			C.B.A.		INCLUDED IN MAIN
					C.B.A.(VEP03440B)
					NV-G21EO/EV
		VEP06409A	OPERATION C.B.A.	1	
		VEP07394A	TIMER C.B.A.	1	NV-G21EG
		VEP07394B	TIMER C.B.A.	1	NV-G21B
		VEP07394C	TIMER C.B.A.	1	NV-G21EO/EV
		VEP07374A	TV DEMODULATOR PACK C.B.A.	1	PART LIST IS

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
					INCLUDED IN MAIN
					C.B.A.(VEP03440A)
					NV-G21EG
		VEP07376A	TV DEMODULATOR PACK C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03440C)
					NV-G21B
		VEP07374B	TV DEMODULATOR PACK C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03440B)
					NV-G21EO/EV
		VEP07375A	TUNER ARU PACK C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03440A)
					INCLUDING THE RF
					CONVERTER UNIT
					(ENC87956) NV-G21EG
		VEP07373A	TUNER ARU PACK C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03440C)
					INCLUDING THE RF
					CONVERTER UNIT
					(ENC87952) NV-G21B
		VEP07375B	TUNER ARU PACK C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03440B)
					INCLUDING THE RF
					CONVERTER UNIT
					(ENC87954),
					NV-G21EO/EV
		VEP07364A	MUTING C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03440A/B/C)
		VEP01264H	POWER C.B.A.	1	INCLUDING THE SUB
					POWER C.B.A.
					(VEP00H48A)
					NV-G21EG<!>
		VEP01264J	POWER C.B.A.	1	INCLUDING THE SUB
					POWER C.B.A.
					(VEP00H48A)
					NV-G21B/EO/EV <!>
		VEP00H48A	SUB POWER C.B.A.	1	PART LIST IS
					INCLUDED IN POWER
					C.B.A.(VEP01264H/J)
					<R>
		VEP07395A	CHANNEL SELECT C.B.A.	1	NV-G21EG
		VEP07395B	CHANNEL SELECT C.B.A.	1	NV-G21B
		VEP07395C	CHANNEL SELECT C.B.A.	1	NV-G21EO/EV
		VEP07368C	VPS C.B.A.	1	NV-G21EG/EV
		ENC87956	RF CONVERTER	1	NV-G21EG<!><R>
		ENC87952	RF CONVERTER	1	NV-G21B<!><R>
		ENC87954	RF CONVERTER	1	NV-G21EO/EV<!><R>
		VEP06380B	IR RECEIEVER C.B.A.	1	PART LIST IS
					INCLUDED IN TIMER
					C.B.A.(VEP07394A/B/C)
		VEP22066A	REMOTE CONTROL UNIT C.B.A.	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP66019D	DIGITAL SCANNER C.B.A.	1	NV-G21/EG/EO/EV
		VEP66019E	DIGITAL SCANNER C.B.A.	1	NV-G21B
		VEP00H50A	BUZZER PACK C.B.A.	1	PART LIST IS
					INCLUDED IN MAIN
					C.B.A.(VEP03440A/B/C)
		VEP00H22A	CYLINDER DRIVE C.B.A.	1	
		VEP00H30A	MECHANISM CONNECTION C.B.A.	1	
		VEP00H31A	REEL SENSOR C.B.A.	1	
		VXA2689	LED C.B.A.	1	
		VEP00H34A	PHOTO TR(T) C.B.A.	1	
		VEP00H35A	PHOTO TR(S) C.B.A.	1	
	■	VEP03440A	MAIN C.B.A.		INCLUDING THE SERVO
			(SYSTEM COMTROL,SERVO,		PACK C.B.A.
			LUMINANCE & CHROMINANCE,		(VEP02266A),SUB
			AUDIO,POWER,DEMODULATOR,		SERVO (1) PACK C.B.A
			TUNER,INPUT SELECT,BUZZER)		(VEP02281A),SUB
					SERVO (2) PACK C.B.A
					(VEP02282A),
					LUMINANCE &
					CHROMINANCE PACK
					C.B.A.(VEP03381A),
					SECAM PACK C.B.A.
					(VEP03382A),INPUT
					SELECT PACK C.B.A.
					(VEP03430A),SUB INPUT
					SELECT PACK C.B.A.
					(VEP03431A),TV
					DEMODULATOR PACK
					C.B.A.(VEP07374A),
					TUNER ARU PACK
					C.B.A.(VEP07375A)
					BUZZER PACK C.B.A.
					(VEP00H50A)
					NV-G21EG<!><R>
	■	VEP03440C	MAIN C.B.A.		INCLUDING THE SERVO
			(SYSTEM COMTROL,SERVO,		PACK C.B.A.
			LUMINANCE & CHROMINANCE,		(VEP02266A),SUB
			AUDIO,POWER,DEMODULATOR,		SERVO (1) PACK C.B.A
			TUNER,INPUT SELECT,BUZZER)		(VEP02281A),SUB
					SERVO (2) PACK C.B.A
					(VEP02282A),
					LUMINANCE &
					CHROMINANCE PACK
					C.B.A.(VEP03381B),
					INPUT SELECT PACK
					C.B.A.(VEP03432A),
					TV DEMODULATOR PACK
					C.B.A. (VEP07376A),
					TUNER ARU PACK
					C.B.A.(VEP07373A)
					BUZZER PACK C.B.A.
					(VEP00H50A)
					NV-G21B<!><R>
	■	VEP03440B	MAIN C.B.A.		INCLUDING THE SERVO
			(SYSTEM COMTROL,SERVO,		PACK C.B.A.
			LUMINANCE & CHROMINANCE,		(VEP02266A),SUB
			AUDIO,POWER,DEMODULATOR,		SERVO (1) PACK C.B.A
			TUNER,INPUT SELECT,BUZZER)		(VEP02281A),SUB
					SERVO (2) PACK C.B.A
					(VEP02282A),
					LUMINANCE &

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
					CHROMINANCE PACK
					C.B.A.(VEP03381B),
					INPUT SELECT PACK
					C.B.A.(VEP03430B),
					SUB INPUT SELECT PACK
					C.B.A.(VEP03431B),
					TV DEMODULATOR PACK
					C.B.A.(VEP07374B),
					TUNER ARU PACK
					C.B.A.(VEP07375B),
					BUZZER PACK C.B.A.
					(VEP00H50A)
					NV-G21E0/EV<!><R>
			CAPACITORS		
C202		ECEA1HKR47	ELECTROLYTIC 50V 0.47U	1	
C203		ECUX1H562KBN	CHIP 50V 5600P	1	
C204		ECEA1CKN100	ELECTROLYTIC 16V 10U	1	
C205		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C206		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C207		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C208		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C209		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C210		ECEA0JK330	ELECTROLYTIC 6.3V 33U	1	
C212		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C213		ECQV1H683JZ	MYLAR 50V 0.068U	1	
C214		ECUX1H102KBN	CHIP 50V 1000P	1	
C215		ECEA1HKNR33	ELECTROLYTIC 50V 0.33U	1	
C216		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C217		ECEA1HKR47	ELECTROLYTIC 50V 0.47U	1	
C218		ECUX1H472KBN	CHIP 50V 4700P	1	
C219		ECQV1H334JZ	MYLAR 50V 0.33U	1	
C220		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C221		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C222		ECQB1H562JH	MYLAR 50V 5600P	1	
C223		ECQB1H223JH	MYLAR 50V 0.022U	1	
C224		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C225		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C226		ECUX1H102KBN	CHIP 50V 1000P	1	
C227		ECUX1H332KBN	CHIP 50V 3300P	1	
C229		ECQB1H272JH	MYLAR 50V 2700P	1	
C230		ECEA1CKN100	ELECTROLYTIC 16V 10U	1	
C231		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C232		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C234		ECUX1H102KBN	CHIP 50V 1000P	1	
C236		ECQB1H223JH	MYLAR 50V 0.022U	1	
C237		ECQB1H562JH	MYLAR 50V 5600P	1	
C238		ECEA0JK101	ELECTROLYTIC 6.3V 100U	1	
C239		ECEA0JK221	ELECTROLYTIC 6.3V 220U	1	
C240		ECEA16Z10	ELECTROLYTIC 16V 10U	1	
C241		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C242		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C243		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C244		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C245		ECUX1H562KBN	CHIP 50V 5600P	1	
C246		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C247		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C248		ECUX1H102KBN	CHIP 50V 1000P	1	
C249		ECCF1H101JC	CERAMIC 50V 100P	1	
C250		ECCF1H271JC	CERAMIC 50V 270P	1	
C251		ECCF1H180JC	CERAMIC 50V 18P	1	
C252		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C253		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C254		VCYD1C473MR1	SEMICONDUCTOR 16V 0.047U	1	
C255		ECKF1H332KB	CERAMIC 50V 3300P	1	
C271		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C272		ECEA1EK3R3	ELECTROLYTIC 25V 3.3U	1	
C273		ECQB1H103JH	MYLAR 50V 0.01U	1	
C301		ECUX1H271KBN	CHIP 50V 270P	1	
C302		ECEA0JU331	ELECTROLYTIC 6.3V 330U	1	NV-G21EG
C303		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C304		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C305		ECEA1CK100	ELECTROLYTIC 16V 10U	1	NV-G21EG
C306		ECEA1CK100	ELECTROLYTIC 16V 10U	1	NV-G21EG

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C307		ECEA1CK100	ELECTROLYTIC 16V 10U	1	NV-G21EG
C309		ECUX1H560JCN	CHIP 50V 56P	1	
C310		ECUX1H820JCN	CHIP 50V 82P	1	
C311		ECEA1CK100	ELECTROLYTIC 16V 10U	1	NV-G21EG
C312		ECEA1HK010	ELECTROLYTIC 50V 1U	1	NV-G21EG
C313		ECUX1H100DCN	CHIP 50V 10P	1	
C314		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	NV-G21EG
C315		ECEA1EKN2R2	ELECTROLYTIC 25V 2.2U	1	
C316		ECUX1H180JCN	CHIP 50V 18P	1	
C317		ECUX1H180JCN	CHIP 50V 18P	1	
C318		ECUX1H180JCN	CHIP 50V 18P	1	
C319		ECUX1H180JCN	CHIP 50V 18P	1	
C321		ECUX1H040CCN	CHIP 50V 4P	1	
C322		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	NV-G21EG
C323		ECUX1H120JCN	CHIP 50V 12P	1	
C325		ECEA1CK100	ELECTROLYTIC 16V 10U	1	NV-G21EG
C326		ECEA1HK010	ELECTROLYTIC 50V 1U	1	NV-G21EG
C328		ECEA1HK0R1	ELECTROLYTIC 50V 0.1U	1	NV-G21EG
C330		ECUX1H220JCN	CHIP 50V 22P	1	
C331		ECEA1AK470	ELECTROLYTIC 10V 47U	1	NV-G21EG
C332		ECUX1H680JCN	CHIP 50V 68P	1	
C333		ECUX1H151JCN	CHIP 50V 150P	1	
C334		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C335		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C336		ECUX1H470JCN	CHIP 50V 47P	1	
C337		ECUX1H100DCN	CHIP 50V 10P	1	
C701		ECEA1CK220	ELECTROLYTIC 16V 22U	1	NV-G21B/E0/EV
C702		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C703		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	NV-G21EG/E0/EV
C703		ECEA1HKN2R2	ELECTROLYTIC 50V 2.2U	1	NV-G21B
C706		ECQV1H873JZ	MYLAR 50V 0.083U	1	NV-G21B
C706		ECQB1H103JH	MYLAR 50V 0.01U	1	NV-G21E0/EV
C707		ECEA1HK010	ELECTROLYTIC 50V 1U	1	NV-G21EG/E0/EV
C707		ECEA1HKS010	ELECTROLYTIC 50V 1U	1	NV-G21B
C708		ECEA1CK470	ELECTROLYTIC 16V 47U	1	NV-G21EG/E0/EV
C709		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	NV-G21EG
C709		ECKF1H103ZF	CERAMIC 50V 0.01U	1	NV-G21E0/EV
C710		ECUX1H103ZF	CHIP 50V 0.01U	1	NV-G21B
C715		ECUX1H103ZF	CHIP 50V 0.01U	1	
C716		ECUX1H103ZF	CHIP 50V 0.01U	1	
C717		ECUX1H103ZF	CHIP 50V 0.01U	1	
C718		ECUX1H103ZF	CHIP 50V 0.01U	1	
C719		ECUX1H103ZF	CHIP 50V 0.01U	1	
C720		ECUX1H103ZF	CHIP 50V 0.01U	1	
C721		ECEA1HKR27	ELECTROLYTIC 50V 0.27U	1	
C722		ECUX1H103ZF	CHIP 50V 0.01U	1	
C723		ECUX1H150JC	CHIP 50V 15P	1	NV-G21EG/E0/EV
C723		ECUX1H120JC	CHIP 50V 12P	1	NV-G21B
C725		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C727		ECUX1H080DCN	CHIP 50V 80P	1	NV-G21EG
C728		ECUX1H103ZF	CHIP 50V 0.01U	1	
C730		ECEA1CK100	ELECTROLYTIC 16V 10U	1	NV-G21EG/E0/EV
C730		ECEA1CKS100	ELECTROLYTIC 16V 10U	1	NV-G21B
C731		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C732		ECQV1H224JZ	MYLAR 50V 0.22U	1	
C734		ECUX1H103ZF	CHIP 50V 0.01U	1	
C735		ECUX1H070DCN	CHIP 50V 7P	1	
C736		ECQB1H103JH	MYLAR 50V 0.01U	1	NV-G21EG/E0/EV
C736		ECQB1H103KH	MYLAR 50V 0.01U	1	NV-G21B
C737		ECUX1H151JC	CHIP 50V 150P	1	
C739		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C740		ECUX1H103ZF	CHIP 50V 0.01U	1	
C741		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C742		ECUX1H030DCN	CHIP 50V 3P	1	NV-G21EG/E0/EV
C742		ECUX1H030CCN	CHIP 50V 3P	1	NV-G21B
C743		ECUX1H270JSN	CHIP 50V 27P	1	NV-G21EG/E0/EV
C743		ECUX1H270JPN	CHIP 50V 27P	1	NV-G21B
C744		ECEA1HKR47	ELECTROLYTIC 50V 0.47U	1	
C745		ECUX1H680JPN	CHIP 50V 68P	1	
C746		ECUX1H150JC	CHIP 50V 15P	1	
C747		ECUX1H103ZF	CHIP 50V 0.01U	1	
C748		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C749		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C760		ECQV1H473JZ	MYLAR 50V 0.047U	1	
C764		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	NV-G21EG

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C775		ECUX1H120JCN	CHIP 50V 12P	1	NV-G21EG
C781		ECUX1H390JCN	CHIP 50V 39P	1	NV-G21B
C782		ECEA1CK220	ELECTROLYTIC 16V 22U	1	NV-G21EG
C783		ECQV1H104JZ	MYLAR 50V 0.1U	1	NV-G21EG
C785		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	NV-G21EG
C785		ECEA1CK220	ELECTROLYTIC 16V 22U	1	NV-G21EO/EV
C786		ECQB1H183JH	MYLAR 50V 0.018U	1	
C801		ECUX1H391KBN	CHIP 50V 390P	1	
C802		ECQB1H223JH	MYLAR 50V 0.022U	1	
C803		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C804		ECUX1H270JCN	CHIP 50V 27P	1	
C805		ECUX1H471KBN	CHIP 50V 470P	1	NV-G21EG
C806		ECEA1CK100	ELECTROLYTIC 16V 10U	1	NV-G21EG
C807		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C808		ECEA10Z100	ELECTROLYTIC 10V 10U	1	
C809		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C810		ECUX1H050CCN	CHIP 50V 5P	1	
C811		ECUX1H102KBN	CHIP 50V 1000P	1	NV-G21EG
C812		ECEA1AK470	ELECTROLYTIC 10V 47U	1	
C813		ECQV1H154JZ	MYLAR 50V 0.15U	1	
C814		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C815		ECUX1H471KBN	CHIP 50V 470P	1	NV-G21EG
C816		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C817		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C818		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C819		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C820		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C821		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C822		ECQV1H473JZ	MYLAR 50V 0.047U	1	NV-G21EG
C823		ECQV1H473JZ	MYLAR 50V 0.047U	1	NV-G21EG
C824		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C825		ECUX1H103ZFN	CHIP 50V 0.01U	1	NV-G21EG
C826		ECUX1H820JCN	CHIP 50V 82P	1	
C827		ECUX1H103ZFN	CHIP 50V 0.01U	1	NV-G21EG
C851		ECKF1H103ZF	CERAMIC 50V 0.01U	1	NV-G21EG
C852		ECEA1CK330	ELECTROLYTIC 16V 33U	1	NV-G21EG
C853		ECEA10Z47	ELECTROLYTIC 10V 47U	1	NV-G21EG
C854		ECQV1H563JZ	MYLAR 50V 0.056U	1	NV-G21EG
C855		ECEA1CK330	ELECTROLYTIC 16V 33U	1	NV-G21EG
C856		ECKF1H103ZF	CERAMIC 50V 0.01U	1	NV-G21EG
C857		ECKF1H103ZF	CERAMIC 50V 0.01U	1	NV-G21EG
C858		ECKF1H681KB	CERAMIC 50V 680P	1	NV-G21EG
C2001		ECQB1H333JH	MYLAR 50V 0.033U	1	
C2002		ECQB1H333JH	MYLAR 50V 0.033U	1	
C2003		ECQB1H333JH	MYLAR 50V 0.033U	1	
C2004		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C2005		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C2006		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	
C2007		ECQB1H223JH	MYLAR 50V 0.022U	1	
C2008		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2011		ECEA1CK101	ELECTROLYTIC 16V 100U	1	
C2012		ECUX1H332KBN	CHIP 50V 3300P	1	
C2013		ECUX1H332KBN	CHIP 50V 3300P	1	
C2014		ECUX1H332KBN	CHIP 50V 3300P	1	
C2016		ECEA25Z47	ELECTROLYTIC 25V 4.7U	1	
C2017		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C2018		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2019		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2020		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2021		ECQB1H223JH	MYLAR 50V 0.022U	1	
C2022		ECQV1H274JZ	MYLAR 50V 0.27U	1	
C2023		ECQV1H474JZ	MYLAR 50V 0.47U	1	
C2701		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C2702		ECQV1H224JZ	MYLAR 50V 0.22U	1	
C3001		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C3002		ECEA0JU471	ELECTROLYTIC 6.3V 470U	1	
C3003		ECUX1H220JCN	CHIP 50V 22P	1	
C3004		ECUX1H151JCN	CHIP 50V 150P	1	
C3005		ECUX1H681JN	CHIP 50V 680P	1	
C3006		ECUX1H220JCN	CHIP 50V 22P	1	
C3007		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C3008		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C3012		ECUX1H150JCN	CHIP 50V 15P	1	
C3013		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C3501		ECEA1CK100	ELECTROLYTIC 16V 10U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3502		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3503		VCYD1E332KR	SEMICONDUCTOR 25V 3300P	1	
C3504		VCYD1E332KR	SEMICONDUCTOR 25V 3300P	1	
C3505		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C3506		ECKF1H221KB	CERAMIC 50V 220P	1	NV-G21EG/B
C3507		ECQB1H333JH	MYLAR 50V 0.033U	1	NV-G21EG/B
C3508		ECKF1H102KB	CERAMIC 50V 1000P	1	NV-G21EG/B
C3509		ECEA0JU331	ELECTROLYTIC 6.3V 330U	1	NV-G21EG
C3801		ECEA1CK220	ELECTROLYTIC 16V 22U	1	NV-G21EG/EO/EV
C3802		ECEA1CK220	ELECTROLYTIC 16V 22U	1	NV-G21EG/EO/EV
C3803		ECEA1CK470	ELECTROLYTIC 16V 47U	1	NV-G21EG/EO/EV
C3804		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	NV-G21EG/EO/EV
C3805		ECEA1CK470	ELECTROLYTIC 16V 47U	1	NV-G21EG/EO/EV
C3806		ECEA1CK470	ELECTROLYTIC 16V 47U	1	NV-G21EG/EO/EV
C3807		ECKF1H102KB	CERAMIC 50V 1000P	1	NV-G21EG/EO/EV
C3808		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	NV-G21EG/EO/EV
C3809		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	NV-G21EG/EO/EV
C3810		ECEA1HK3R3	ELECTROLYTIC 50V 3.3U	1	NV-G21EG/EO/EV
C3811		ECEA1HK2R2	ELECTROLYTIC 50V 2.2U	1	NV-G21EG/EO/EV
C3812		ECEA1CK330	ELECTROLYTIC 16V 33U	1	NV-G21EG/EO/EV
C3813		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	NV-G21EG/EO/EV
C3814		ECEA1CK100	ELECTROLYTIC 16V 10U	1	NV-G21EG
C3815		ECEA1CK100	ELECTROLYTIC 16V 10U	1	NV-G21EG
C3816		ECKF1H121KB	CERAMIC 50V 120P	1	NV-G21EG
C3817		ECEA1HK010	ELECTROLYTIC 50V 1U	1	NV-G21EG
C3818		ECKF1H102KB	CERAMIC 50V 1000P	1	NV-G21EG
C3819		ECEA1HK010	ELECTROLYTIC 50V 1U	1	NV-G21EG
C3820		ECKF1H221KB	CERAMIC 50V 220P	1	NV-G21EG/EO/EV
C4002		ECUX1H102KBN	CHIP 50V 1000P	1	
C4003		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C4004		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4005		ECEA1AK330	ELECTROLYTIC 10V 33U	1	
C4006		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4007		ECEA1CKL100	ELECTROLYTIC 16V 10U	1	
C4008		ECUX1H471KBN	CHIP 50V 470P	1	
C4009		ECUX1H101KN	CHIP 50V 100P	1	
C4010		ECQB1H123JH	MYLAR 50V 0.012U	1	
C4011		ECEA1CKL100	ELECTROLYTIC 16V 10U	1	
C4012		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C4013		ECEA1AK220	ELECTROLYTIC 10V 22U	1	
C4014		ECEA1AK101	ELECTROLYTIC 10V 100U	1	
C4015		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4016		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4018		ECQB1H223JH	MYLAR 50V 0.022U	1	
C4019		ECQB1H333KH	MYLAR 50V 0.033U	1	NV-G21B
C4020		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C4021		ECUX1H102KBN	CHIP 50V 1000P	1	
C4022		ECQB1H103JH	MYLAR 50V 0.01U	1	
C4023		ECEA1CK470	ELECTROLYTIC 16V 47U	1	
C4024		ECQP1222JZ	MYLAR 100V 2200P	1	
C4025		ECEA1CKL100	ELECTROLYTIC 16V 10U	1	
C4026		ECCD2H121K	CERAMIC 500V 120P	1	
C6001		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C6007		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C6011		ECUX1H103KBN	CHIP 50V 0.01U	1	
C6012		ECUX1H103KBN	CHIP 50V 0.01U	1	
C6014		ECUX1H221KN	CHIP 50V 220P	1	
C6017		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6018		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6019		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6020		ECUX1H103KBN	CHIP 50V 0.01U	1	
C6022		ECEA0JK330	ELECTROLYTIC 6.3V 33U	1	
C6023		ECUX1H103KBN	CHIP 50V 0.01U	1	
C6024		ECEA1CK330	ELECTROLYTIC 16V 33U	1	
C6025		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C6026		ECQB1H103JH	MYLAR 50V 0.01U	1	
C6027		ECUX1H271KBN	CHIP 50V 270P	1	
C6028		ECUX1H271KBN	CHIP 50V 270P	1	
C6029		ECUX1H271KBN	CHIP 50V 270P	1	
C6030		ECEA1CK101	ELECTROLYTIC 16V 100U	1	NV-G21EG/EO/EV
C7518		EECS5R5V473	GOLD 5.5V 0.047	1	
C7573		ECEA1HKN010	ELECTROLYTIC 50V 1U	1	
C7651		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7652		ECEA1CKN330	ELECTROLYTIC 16V 33U	1	NV-G21EG/EO/EV
C7653		ECQB1H392JH	MYLAR 50V 3900P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C7654		ECQB1H103JH	MYLAR 50V 0.01U	1	
C7655		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7656		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7657		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7658		ECQP1562JZ	MYLAR 100V 5600P	1	
C7659		ECQB1H272JH	MYLAR 50V 2700P	1	
C8001		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C8002		ECUX1H103ZFN	CHIP 50V 0.01U	1	
D201		MA165	DIODE	1	
D202		MA165	DIODE	1	
D203		MA165	DIODE	1	
D204		MA156	DIODE	1	
D301		MA165	DIODE	1	
D302		MA165	DIODE	1	
D303		1SS283	DIODE	1	
D304		1SS283	DIODE	1	
D710		MA3100L	DIODE	1	
D712		MA27WA	DIODE	1	
D771		MA151WK	DIODE	1	NV-G21EG/EO/EV
D801		MA165	DIODE	1	
D802		MA165	DIODE	1	
D2007		MA165	DIODE	1	
D3001		MA165	DIODE	1	
D3002		MA165	DIODE	1	
D3004		ERA15-01V5	DIODE	1	
D3501		MA165	DIODE	1	
D3502		MA27W	DIODE	1	
D3801		MA165	DIODE	1	NV-G21EG/EO/EV
D6001		11ES1	DIODE	1	
D6002		MA165	DIODE	1	
D6005		MA165	DIODE	1	
D6009		MA165	DIODE	1	
D6010		MA165	DIODE	1	
D6011		MA165	DIODE	1	
D6012		MA165	DIODE	1	
D6017		11ES1	DIODE	1	
D6019		MA4140M	DIODE	1	
D6020		MA4110L	DIODE	1	
D6021		MA165	DIODE	1	
D6022		MA165	DIODE	1	
D6023		MA165	DIODE	1	
D6024		MA165	DIODE	1	
D6028		MA165	DIODE	1	
D6029		MA165	DIODE	1	
D6030		MA165	DIODE	1	
D6031		MA165	DIODE	1	
D6032		MA165	DIODE	1	NV-G21EG/EO/EV
D6033		MA165	DIODE	1	NV-G21EG/EO/EV
D7552		11ES1	DIODE	1	
D7555		MA27WB	DIODE	1	
D7556		MA165	DIODE	1	
D7574		LN28WPVT	LED	1	
DL301		EFDEN645A51F	DELAY LINE	1	
DL801		EFDHR124A13A	DELAY LINE	1	
FL301		ELB4M022	FILTER	1	
FL303		VLF0499	FILTER	1	
FL801		VLF0299	FILTER	1	
FL851		VLF0143	FILTER	1	NV-G21EG
FL3501		ELB4H020	FILTER	1	NV-G21EG/EO/EV
FL3501		VLF0413	FILTER	1	NV-G21B
FL4001		VLF0332	FILTER	1	
IC201		UPD6160CA605	IC	1	
IC202		MN15311VJC	IC	1	
IC203		UPC358C	IC	1	
IC301		VEFY017	IC	1	
IC701		M51366SP	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC801		VEFC013	FIC	1	
IC851		BA7025L	IC	1	NV-G21EG
IC2001		BA6430S	IC	1	
IC2702		UPC358C	IC	1	
IC3501		BA7004	IC	1	
IC3801		M5202P	IC	1	NV-G21EG/EO/EV
IC3802		AN6552	IC	1	NV-G21EG
IC4001		BA7752LS	IC	1	
IC6001		MN15362VJR	IC	1	
IC6002		UPC393C	IC	1	
IC6003		UPD4510BC	IC	1	
IC6004		MN1280	IC	1	
IC7651		AN5421	IC	1	
L202		VLQEL05F101K	COIL 100UH	1	
L301		VLQEL05F180K	COIL 18UH	1	
L302		VLQEL05F180K	COIL 18UH	1	
L303		VLQEL05F101K	COIL 100UH	1	
L304		VLQEL05F101K	COIL 100UH	1	
L305		VLQEL05F101K	COIL 100UH	1	
L306		VLQEL05F820K	COIL 82UH	1	
L307		VLQEL05F101K	COIL 100UH	1	
L310		VLQEL05F101K	COIL 100UH	1	
L311		VLQEL05F270K	COIL 27UH	1	
L701		VLQEL05F680K	COIL 68UH	1	NV-G21EG/EO/EV
L702		VLQEL05F680K	COIL 68UH	1	
L703		VLQEL05F221K	COIL 220UH	1	NV-G21EG
L704		VLQEL05F221K	COIL 220UH	1	NV-G21EG
L711		ELQF1R2KB	COIL 1.2UH	1	NV-G21B
L712		ELQF1R2KB	COIL 1.2UH	1	NV-G21EG
L712		ELQFR82XB	COIL 0.82UH	1	NV-G21B/EO/EV
L713		ELQFR56XB	COIL 0.56UH	1	NV-G21B/EO/EV
L714		ELQF1R2KB	COIL 1.2UH	1	
L715		VLQEL05F680K	COIL 68UH	1	NV-G21EG
L715		VLQEL05F680T	COIL 68UH	1	NV-G21B/EO/EV
L716		VLQEL05F560K	COIL 56UH	1	NV-G21EG
L717		VLQEL05F680K	COIL 68UH	1	
L718		VLQEL05F680K	COIL 68UH	1	NV-G21EG/EO/EV
L718		VLQEL05F330K	COIL 33UH	1	NV-G21B
L719		VLQEL05F120K	COIL 12UH	1	
L801		VLQEL05F150K	COIL 15UH	1	
L802		VLQEL05F470K	COIL 47UH	1	
L803		VLQEL05F270K	COIL 27UH	1	
L804		VLQEL05F151K	COIL 150UH	1	
L805		VLQEL05F101K	COIL 100UH	1	
L806		VLQEL05F470K	COIL 47UH	1	
L807		VLQEL05F331K	COIL 330UH	1	
L808		VLQEL05F681K	COIL 680UH	1	
L809		VLQEL05F681K	COIL 680UH	1	
L810		VLQEL05F101K	COIL 100UH	1	
L851		VLQEL05F101K	COIL 100UH	1	NV-G21EG
L2001		VLQEL05F102K	COIL 1000UH	1	
L3001		VLQEL05F101K	COIL 100UH	1	
L3002		VLQEL05F101K	COIL 100UH	1	
L3003		VLQEL05F101K	COIL 100UH	1	
L3004		VLQEL05F6R8J	COIL 6.8UH	1	
L3005		VLQEL05F120J	COIL 12UH	1	
L3501		VLQEL05F101K	COIL 100UH	1	
L3502		VLQEL05F101K	COIL 100UH	1	
L3503		VLQEL05F010K	COIL 1UH	1	NV-G21EG/B
L3504		VLQEL06F471K	COIL 470UH	1	NV-G21EG/EO/EV
L3505		VLQEL06F2R7K	COIL 2.7UH	1	NV-G21EG
L3801		VLQEL05F101K	COIL 100UH	1	
L4001		VLQEL07F822J	COIL 8200UH	1	
L4002		VLQEL05F471K	COIL 470UH	1	
L7551		VLQEL05F102K	COIL 1000UH	1	
L7552		VLQEL05F101K	COIL 100UH	1	
P001		VJS1232T	CONNECTOR (FEMALE)	1	
P006		VJS1902	CONNECTOR (FEMALE)	1	
P501		VJS1235T	CONNECTOR (FEMALE)	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P502		VJS1233T	CONNECTOR (FEMALE)	1	
P1504		VJS1745	CONNECTOR (FEMALE)	1	
P2002		VJP1932T	CONNECTOR (MALE)	1	
P2002		VJS1932	CONNECTOR (FEMALE)	1	
P3003		VJP1258	CONNECTOR (MALE)	1	
P4001		VJP1233T	CONNECTOR(MALE) 6P	1	
P6002		VJS1935	CONNECTOR (FEMALE)	1	
P6004		VJS1467	CONNECTOR(FEMALE)	1	
P6005		VJS1917	CONNECTOR (FEMALE)	1	
P6201		VJS1236T	CONNECTOR (FEMALE)	1	
P7506		VJS1231R	CONNECTOR (FEMALE)	1	
P7507		VJS1230T	CONNECTOR (FEMALE)	1	
P7551		VJS1235T	CONNECTOR (FEMALE)	1	
P7552		VJS1233T	CONNECTOR (FEMALE)	1	
P7553		VJS1231T	CONNECTOR (FEMALE)	1	
P7554		VJS1231T	CONNECTOR (FEMALE)	1	
P7555		VJS1232T	CONNECTOR (FEMALE)	1	
P7556		VJS1233T	CONNECTOR (FEMALE)	1	
P7557		VJS1235T	CONNECTOR (FEMALE)	1	
P7801		VJS1234T	CONNECTOR (FEMALE)	1	NV-G21EG/EO/EV
P7802		VJS1231T	CONNECTOR (FEMALE)	1	NV-G21EG/EO/EV
PK201		VJR0189	CONNECTOR	1	
PK202		VJR0190	CONNECTOR	1	
PK203		VJR0190	CONNECTOR	1	
PK271		VJR0188	CONNECTOR	1	
PK3501		VJR0161	CONNECTOR	1	
PK3502		VJR0283	CONNECTOR	1	
PK3503		VJR0244	CONNECTOR	1	
PK3504		VJR0244	CONNECTOR	1	
PK7501		VJR0244	CONNECTOR	1	NV-G21EG/EO/EV
Q201		2SD636	TRANSISTOR	1	
Q202		2SD636	TRANSISTOR	1	
Q203		2SB641	TRANSISTOR	1	
Q204		2SB641	TRANSISTOR	1	
Q205		2SB641	TRANSISTOR	1	
Q206		2SB641	TRANSISTOR	1	
Q207		2SC2206	TRANSISTOR	1	(B,C)
Q208		2SD636	TRANSISTOR	1	
Q271		2SD636	TRANSISTOR	1	
Q272		2SD636	TRANSISTOR	1	
Q273		2SD636	TRANSISTOR	1	
Q274		2SD636	TRANSISTOR	1	
Q301		2SD601	TRANSISTOR CHIP	1	
Q302		2SB709	TRANSISTOR CHIP	1	
Q303		2SB709	TRANSISTOR CHIP	1	
Q304		2SD601	TRANSISTOR CHIP	1	
Q305		2SB709	TRANSISTOR CHIP	1	
Q306		2SD601	TRANSISTOR CHIP	1	
Q307		2SC2295	TRANSISTOR	1	
Q308		2SB709	TRANSISTOR CHIP	1	
Q703		2SD601	TRANSISTOR CHIP	1	(S,T)
Q710		2SC2377	TRANSISTOR	1	(C) NV-G21EG/EO/EV
Q710		2SC1047	TRANSISTOR	1	(C,D) NV-G21B
Q712		2SC1317	TRANSISTOR	1	NV-G21EG/EO/EV
Q712		2SD638	TRANSISTOR	1	NV-G21B
Q713		2SD1328	TRANSISTOR CHIP	1	(S,T)
Q714		2SD601	TRANSISTOR CHIP	1	
Q761		2SD601	TRANSISTOR CHIP	1	NV-G21B
Q771		2SD601	TRANSISTOR CHIP	1	NV-G21EG
Q772		2SK198	TRANSISTOR CHIP	1	(Q,R,S) NV-G21EG
Q773		2SK198	TRANSISTOR CHIP	1	NV-G21EG
Q801		2SC2295	TRANSISTOR	1	
Q802		2SD601	TRANSISTOR CHIP	1	
Q803		2SD601	TRANSISTOR CHIP	1	
Q804		2SC2295	TRANSISTOR	1	
Q805		2SD601	TRANSISTOR CHIP	1	
Q806		2SC2295	TRANSISTOR	1	
Q851		2SC2206	TRANSISTOR	1	NV-G21EG
Q2001		2SB641	TRANSISTOR	1	
Q2002		2SD636	TRANSISTOR	1	
Q3001		2SB641	TRANSISTOR	1	
Q3002		2SB641	TRANSISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q3003		2SC2206	TRANSISTOR	1	
Q3501		2SC2206	TRANSISTOR	1	
Q3502		2SB641	TRANSISTOR	1	NV-G21EG
Q3801		2SB641	TRANSISTOR	1	(Q,R,S) NV-G21EG
Q4001		2SD639	TRANSISTOR	1	(R)
Q4002		2SD637	TRANSISTOR	1	
Q4003		2SD637	TRANSISTOR	1	
Q4004		2SB642	TRANSISTOR	1	(Q,R,S)
Q6006		2SB643	TRANSISTOR	1	
Q6007		2SB790	TRANSISTOR	1	(Q,R,S)
Q6009		2SB790	TRANSISTOR	1	(Q,R,S)
Q6016		2SD1275	TRANSISTOR	1	
Q6017		2SD893	TRANSISTOR	1	
Q6018		2SD973	TRANSISTOR	1	
Q6019		2SD638	TRANSISTOR	1	
Q6020		2SC1384	TRANSISTOR	1	(S) NV-G21EG/EO/EV
Q6021		2SC1384	TRANSISTOR	1	(S) NV-G21EG/EO/EV
Q7551		2SB644	TRANSISTOR	1	
Q7552		2SB644	TRANSISTOR	1	
Q7553		2SC3311	TRANSISTOR	1	
Q8001		2SD636	TRANSISTOR	1	
QR201		UN1113	TRANSISTOR-RESISTOR	1	
QR202		UN1113	TRANSISTOR-RESISTOR	1	
QR203		UN1212	TRANSISTOR-RESISTOR	1	
QR301		UN2213	TRANSISTOR-RESISTOR	1	
QR701		UN2213	TRANSISTOR-RESISTOR	1	
QR702		UN2213	TRANSISTOR-RESISTOR	1	
QR711		UN2212	TRANSISTOR-RESISTOR	1	NV-G21EG
QR712		UN2212	TRANSISTOR-RESISTOR	1	NV-G21EG
QR713		UN2211	TRANSISTOR-RESISTOR	1	NV-G21EG/EO/EV
QR714		UN2211	TRANSISTOR-RESISTOR	1	NV-G21EG/EO/EV
QR851		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213
QR852		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213 NV-G21EG
QR853		DTC144EA	TRANSISTOR RESISTOR	1	OR UN1213 NV-G21EG
QR2002		UN1212	TRANSISTOR-RESISTOR	1	
QR2003		UN1213	TRANSISTOR-RESISTOR	1	
QR3001		UN1111	TRANSISTOR-RESISTOR	1	
QR3002		UN1213	TRANSISTOR-RESISTOR	1	NV-G21EG/EO/EV
QR3003		UN1212	TRANSISTOR-RESISTOR	1	
QR3004		UN1213	TRANSISTOR-RESISTOR	1	
QR6001		UN1212	TRANSISTOR-RESISTOR	1	
QR6002		UN1211	TRANSISTOR-RESISTOR	1	NV-G21EG/EO/EV
QR6004		UN1213	TRANSISTOR-RESISTOR	1	
QR6005		UN1213	TRANSISTOR-RESISTOR	1	
QR6006		UN1111	TRANSISTOR-RESISTOR	1	
QR6008		UN1111	TRANSISTOR-RESISTOR	1	
QR6011		UN1212	TRANSISTOR-RESISTOR	1	
QR6012		DTA144EA	TRANSISTOR RESISTOR	1	
QR6013		UN1213	TRANSISTOR-RESISTOR	1	
QR6014		UN1211	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R201		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R202		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R203		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R204		ERJ6GMYJ221	CHIP 1/16W 220	1	
R205		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R206		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R207		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R208		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R209		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R210		ERJ6GMYJ274	CHIP 1/16W 270K	1	
R211		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R212		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R213		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R214		ERJ6GMYJ224	CHIP 1/16W 220K	1	
R215		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R216		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R217		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R218		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R219		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R220		ERJ6GMYJ274	CHIP 1/16W 270K	1	
R222		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R223		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R224		ERJ6GMYJ561	CHIP 1/16W 560	1	
R225		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R226		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R227		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R228		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R229		ERJ6GMYJ221	CHIP 1/16W 220	1	
R230		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R231		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R232		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R233		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R234		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R235		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R236		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R237		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R238		ERJ6GMYJ124	CHIP 1/16W 120K	1	
R239		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R240		ERJ6GMYG333	CHIP 1/16W 33K	1	
R241		ERJ6GMYJ680	CHIP 1/16W 680K	1	
R242		ERJ6GMYJ154	CHIP 1/16W 150K	1	
R243		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R244		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R245		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R246		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R247		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R248		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R249		ERJ6GMYG472	CHIP 1/16W 4.7K	1	
R250		ERJ6GMYJ821	CHIP 1/16W 820	1	
R251		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R252		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R253		ERDS2TJ684	CARBON 1/4W 680K	1	
R256		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R257		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R258		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R259		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R260		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R261		ERJ6GMYJ183	CHIP 1/16W 18K	1	
R262		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R263		ERDS2TJ561	CARBON 1/4W 560	1	
R264		ERDS2TJ333	CARBON 1/4W 33K	1	
R265		ERDS2TJ103	CARBON 1/4W 10K	1	
R266		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R267		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R268		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R269		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R271		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R272		ERDS2TJ154	CARBON 1/4W 150K	1	
R273		ERDS2TJ153	CARBON 1/4W 15K	1	
R274		ERDS2TJ154	CARBON 1/4W 150K	1	
R275		ERDS2TJ102	CARBON 1/4W 1K	1	
R276		ERDS2TJ273	CARBON 1/4W 27K	1	
R277		ERDS2TJ681	CARBON 1/4W 680	1	
R278		ERDS2TJ104	CARBON 1/4W 100K	1	
R279		ERDS2TJ683	CARBON 1/4W 68K	1	
R301		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R302		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R303		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R304		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R305		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R306		ERJ6GMYJ151	CHIP 1/16W 150	1	
R307		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R308		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R309		ERJ6GMYJ680	CHIP 1/16W 680K	1	
R310		ERJ6GMYJ561	CHIP 1/16W 560	1	
R312		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R313		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R314		ERJ6GMYJ471	CHIP 1/16W 470	1	
R315		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R316		ERJ6GMYJ471	CHIP 1/16W 470	1	
R317		ERJ6GMYJ471	CHIP 1/16W 470	1	
R318		ERJ6GMYJ471	CHIP 1/16W 470	1	
R319		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R320		ERJ6GMYJ560	CHIP 1/16W 56	1	
R321		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R322		ERJ6GMYJ823	CHIP 1/16W 82K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R323		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R324		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R325		ERJ6GMYJ681	CHIP 1/16W 680	1	
R326		ERJ6GMYJ183	CHIP 1/16W 18K	1	
R327		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R328		ERJ6GMYJ151	CHIP 1/16W 150	1	
R329		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R350		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R351		ERJ6GMYJ823	CHIP 1/16W 82K	1	
R352		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R707		ERDS2TJ223	CARBON 1/4W 22K	1	NV-G21EG
R707		ERDS2TJ103	CARBON 1/4W 10K	1	NV-G21B/EO/EV
R712		ERJ6GEYJ682	CHIP 1/16W 6.8K	1	
R713		ERJ6GEYJ681	CHIP 1/16W 680	1	NV-G21EG/EO/EV
R714		ERD2FCG330	CARBON 2W 33	1	<!>
R715		ERJ6GEYJ561	CHIP 1/16W 560	1	NV-G21EG
R715		ERJ6GEYJ271	CHIP 1/16W 270	1	NV-G21B/EO/EV
R716		ERJ6GEYJ152	CHIP 1/16W 1.5K	1	NV-G21EG/EO/EV
R716		ERJ6GEYJ272	CHIP 1/16W 2.7K	1	NV-G21B
R717		ERJ6GEYJ332	CHIP 1/16W 3.3K	1	
R718		ERJ6GEYJ754	CHIP 1/16W 750K	1	
R719		ERJ6GEYJ682	CHIP 1/16W 6.8K	1	
R720		ERJ6GEYJ822	CHIP 1/16W 8.2K	1	
R721		ERJ6GEYJ332	CHIP 1/16W 3.3K	1	NV-G21EG
R722		ERJ6GEYJ392	CHIP 1/16W 3.9K	1	NV-G21EG/EO/EV
R723		ERJ6GEYJ183	CHIP 1/16W 18K	1	NV-G21EG/EO/EV
R723		ERJ6GEYJ104	CHIP 1/16W 100K	1	NV-G21B
R724		ERJ6GEYJ101	CHIP 1/16W 100	1	
R725		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R726		ERJ6GEYJ472	CHIP 1/16W 4.7K	1	
R727		ERDS2TJ471	CARBON 1/4W 470	1	
R728		ERDS2TJ471	CARBON 1/4W 470	1	
R729		ERJ6GEYJ331	CHIP 1/16W 330	1	
R730		ERJ6GEYJ331	CHIP 1/16W 330	1	
R737		ERJ6GEYJ274	CHIP 1/16W 270K	1	NV-G21EG
R737		ERJ6GEYJ474	CHIP 1/16W 470K	1	NV-G21B/EO/EV
R738		ERJ6GEYJ334	CHIP 1/16W 330K	1	NV-G21EG
R738		ERJ6GEYJ394	CHIP 1/16W 390K	1	NV-G21B
R738		ERJ6GEYJ274	CHIP 1/16W 270K	1	NV-G21EO/EV
R739		ERDS2TJ681	CARBON 1/4W 680	1	
R740		ERJ6GEYJ473	CHIP 1/16W 47K	1	
R741		ERJ6GEYJ272	CHIP 1/16W 2.7K	1	
R742		ERJ6GEYJ272	CHIP 1/16W 2.7K	1	
R743		ERDS2TJ470	CARBON 1/4W 47	1	
R744		ERJ6GEYJ821	CHIP 1/16W 820	1	
R745		ERJ6GEYJ331	CHIP 1/16W 330	1	
R746		ERDS2TJ181	CARBON 1/4W 180	1	
R750		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R757		ERJ6GEYJ222	CHIP 1/16W 2.2K	1	
R759		ERDS2TJ103	CARBON 1/4W 10K	1	
R760		ERJ6GEYJ102	CHIP 1/16W 1K	1	
R761		ERJ6GEYJ101	CHIP 1/16W 100	1	NV-G21B
R762		ERJ6GEYJ472	CHIP 1/16W 4.7K	1	NV-G21B
R763		ERJ6GEYJ103	CHIP 1/16W 10K	1	
R764		ERJ6GEYJ822	CHIP 1/16W 8.2K	1	
R772		ERJ6GEYJ102	CHIP 1/16W 1K	1	NV-G21EG
R773		ERJ6GEYJ103	CHIP 1/16W 10K	1	NV-G21EG
R774		ERDS2TJ333	CARBON 1/4W 33K	1	NV-G21EG
R775		ERJ6GEYJ334	CHIP 1/16W 330K	1	NV-G21EG
R776		ERJ6GEYJ105	CHIP 1/16W 1M	1	NV-G21EG
R777		ERJ6GEYJ184	CHIP 1/16W 180K	1	NV-G21EG
R778		ERJ6GEYJ105	CHIP 1/16W 1M	1	NV-G21EG
R779		ERJ6GEYJ104	CHIP 1/16W 100K	1	NV-G21EG
R781		ERJ6GEYJ681	CHIP 1/16W 680	1	NV-G21B
R782		ERJ6GEYJ471	CHIP 1/16W 470	1	NV-G21B
R792		ERJ6GEYJ120	CHIP 1/16W 12	1	
R801		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R802		ERJ6GMYJ101	CHIP 1/16W 100	1	
R803		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R804		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R805		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R806		ERJ6GMYJ271	CHIP 1/16W 270	1	
R807		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R808		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R809		ERJ6GMYJ103	CHIP 1/16W 10K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R810		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R811		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R812		ERJ6GMYJ471	CHIP 1/16W 470	1	
R813		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R814		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R815		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R816		ERJ6GMYJ821	CHIP 1/16W 820	1	
R817		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R818		ERJ6GMYJ273	CHIP 1/16W 27K	1	
R819		ERDS2TJ470	CARBON 1/4W 47	1	
R820		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R821		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R822		ERJ6GEYJ182	CHIP 1/16W 1.8K	1	
R823		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R824		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R825		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R826		ERJ6GMYJ390	CHIP 1/16W 39	1	
R827		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R828		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R829		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R830		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R831		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R832		ERJ6GMYJ271	CHIP 1/16W 270	1	
R833		ERJ6GMYJ471	CHIP 1/16W 470	1	
R834		ERJ6GMYJ393	CHIP 1/16W 39K	1	
R835		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R836		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R851		ERDS2TJ223	CARBON 1/4W 22K	1	NV-G21EG
R852		ERDS2TJ390	CARBON 1/4W 39	1	NV-G21EG
R853		ERDS2TJ154	CARBON 1/4W 150K	1	NV-G21EG
R854		ERDS2TJ222	CARBON 1/4W 2.2K	1	NV-G21EG
R855		ERDS2TJ102	CARBON 1/4W 1K	1	NV-G21EG
R856		ERDS2TJ103	CARBON 1/4W 10K	1	NV-G21EG
R857		ERDS2TJ472	CARBON 1/4W 4.7K	1	NV-G21EG
R858		ERDS2TJ221	CARBON 1/4W 220	1	NV-G21EG
R2001		ERDS2TJ560	CARBON 1/4W 56	1	
R2002		ERDS2TJ560	CARBON 1/4W 56	1	
R2003		ERDS2TJ560	CARBON 1/4W 56	1	
R2004		ERX12SJ1R0	METAL OXIDE 1/2W 1	1	
R2005		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R2006		ERJ6GMYG512	CHIP 1/16W 5.1K	1	
R2007		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R2008		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R2009		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R2010		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R2018		ERJ6GMYJ330	CHIP 1/16W 33	1	
R2029		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R2030		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R2031		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R2032		ERJ6GMYJ124	CHIP 1/16W 120K	1	
R2033		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R2034		ERJ6GMYJ391	CHIP 1/16W 390	1	
R2710		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R2711		ERDS2TJ105	CARBON 1/4W 1000K	1	
R2712		ERDS2TJ102	CARBON 1/4W 1K	1	
R2713		ERDS2TJ102	CARBON 1/4W 1K	1	
R2714		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R2715		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R2716		ERDS2TJ223	CARBON 1/4W 22K	1	
R3001		ERDS2TJ471	CARBON 1/4W 470	1	
R3002		ERJ6GMYJ750	CHIP 1/16W 75	1	
R3004		ERJ6GMYJ750	CHIP 1/16W 75	1	
R3005		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R3006		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R3008		ERJ6GMYJ561	CHIP 1/16W 560	1	
R3009		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R3019		ERJ6GMYJ822	CHIP 1/16W 8.2K	1	
R3020		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R3502		ERDS2TJ561	CARBON 1/4W 560	1	
R3503		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R3504		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R3505		ERDS2TJ392	CARBON 1/4W 3.9K	1	
R3506		ERDS2TJ102	CARBON 1/4W 1K	1	
R3507		ERDS2TJ750	CARBON 1/4W 75	1	
R3508		ERDS2TJ750	CARBON 1/4W 75	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3509		ERDS2TJ333	CARBON 1/4W 33K	1	
R3510		ERDS2TJ183	CARBON 1/4W 18K	1	
R3511		ERDS2TJ750	CARBON 1/4W 75	1	NV-G21EO/EV
R3512		ERDS2TJ750	CARBON 1/4W 75	1	NV-G21EG
R3513		ERDS2TJ101	CARBON 1/4W 100	1	NV-G21EG
R3514		ERDS2TJ242	CARBON 1/4W 2.4K	1	NV-G21EG
R3516		ERDS2TJ242	CARBON 1/4W 2.4K	1	NV-G21EG
R3517		ERDS2TJ471	CARBON 1/4W 470	1	NV-G21EG
R3801		ERDS2TJ124	CARBON 1/4W 120K	1	NV-G21EG/EO/EV
R3802		ERDS2TJ124	CARBON 1/4W 120K	1	NV-G21EG/EO/EV
R3803		ERDS2TJ223	CARBON 1/4W 22K	1	NV-G21EG/EO/EV
R3804		ERDS2TJ222	CARBON 1/4W 2.2K	1	NV-G21EG/EO/EV
R3805		ERG1ANJ820	METAL OXIDE 1W 82	1	NV-G21EG/EO/EV
R3806		ERDS2TJ103	CARBON 1/4W 10K	1	NV-G21EG/EO/EV
R3807		ERDS2TJ473	CARBON 1/4W 47K	1	NV-G21EG
R3808		ERDS2TJ753	CARBON 1/4W 75K	1	NV-G21EG
R3809		ERDS2TJ183	CARBON 1/4W 18K	1	NV-G21EG
R3810		ERDS2TJ474	CARBON 1/4W 470K	1	NV-G21EG
R3811		ERDS2TJ474	CARBON 1/4W 470K	1	NV-G21EG
R3812		ERDS2TJ102	CARBON 1/4W 1K	1	NV-G21EG
R3813		ERDS2TJ471	CARBON 1/4W 470	1	NV-G21EG
R3814		ERDS2TJ750	CARBON 1/4W 75	1	NV-G21EG/EO/EV
R4001		ERJ6GMYJ100	CHIP 1/16W 10	1	
R4003		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R4004		ERJ6GMYJ563	CHIP 1/16W 56K	1	
R4005		ERJ6GMYJ132	CHIP 1/16W 1.3K	1	
R4006		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R4008		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R4009		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R4010		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R4011		ERJ6GMYJ334	CHIP 1/16W 330K	1	
R4012		ERJ6GMYJ331	CHIP 1/16W 330	1	
R4013		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R4015		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R4016		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R4017		ERDS2TJ223	CARBON 1/4W 22K	1	
R4018		ERDS2TJ122	CARBON 1/4W 1.2K	1	
R4019		ERJ6GMYJ472	CHIP 1/16W 4.7K	1	
R4020		ERJ6GMYJ163	CHIP 1/16W 16K	1	
R4021		ERJ6GMYJ470	CHIP 1/16W 47	1	
R4022		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R4023		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R4024		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R4025		ERJ6GMYJ560	CHIP 1/16W 56	1	
R4027		ERJ6GMYJ511	CHIP 1/16W 510	1	
R4029		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R4030		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R6001		ERDS1TJ470	CARBON 1/2W 47	1	
R6006		ERD2FCVG220	CARBON 2W 22	1	<!>
R6007		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R6008		ERJ6GMYJ181	CHIP 1/16W 180	1	
R6009		ERJ6GMYJ561	CHIP 1/16W 560	1	
R6009		ERJ6GMYJ561	CHIP 1/16W 560	1	
R6010		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R6011		ERJ6GMYJ221	CHIP 1/16W 220	1	
R6016		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6017		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R6019		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R6022		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6023		ERJ6GMYJ683	CHIP 1/16W 68K	1	
R6024		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6025		ERJ6GMYJ824	CHIP 1/16W 820K	1	
R6026		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R6027		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6028		ERJ6GMYJ184	CHIP 1/16W 180K	1	
R6029		ERJ6GMYJ561	CHIP 1/16W 560	1	
R6030		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R6031		ERJ6GMYJ153	CHIP 1/16W 15K	1	
R6032		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R6033		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R6034		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R6035		ERJ6GMYJ101	CHIP 1/16W 100	1	
R6036		ERJ6GMYJ101	CHIP 1/16W 100	1	
R6037		ERJ6GMYJ101	CHIP 1/16W 100	1	
R6038		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6041		ERJ6GMYJ391	CHIP 1/16W 390	1	
R6045		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6046		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R6050		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6051		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R6068		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R6069		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6070		ERJ6GMYJ471	CHIP 1/16W 470	1	
R6071		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R6072		ERJ6GMYJ562	CHIP 1/16W 5.6K	1	
R6073		ERJ6GMYJ391	CHIP 1/16W 390	1	
R6074		ERJ6GMYJ561	CHIP 1/16W 560	1	
R6075		ERG2SJ180	METAL OXIDE 2W 18	1	
R6079		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6080		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R6081		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6083		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R6085		ERJ6GMYJ101	CHIP 1/16W 100	1	
R6087		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6088		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R6089		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R6090		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R6093		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R6094		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R6095		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R6096		ERJ6GMYJ272	CHIP 1/16W 2.7K	1	
R6097		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	NV-G21EG/EO/EV
R6098		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	NV-G21EG/EO/EV
R6099		ERDS2TJ103	CARBON 1/4W 10K	1	NV-G21EG/EO/EV
R7518		ERJ6GMYJ181	CHIP 1/16W 180	1	
R7552		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R7572		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7573		ERJ6GMYJ820	CHIP 1/16W 82	1	
R7574		ERJ6GMYJ333	CHIP 1/16W 33K	1	
R7575		ERJ6GMYJ273	CHIP 1/16W 27K	1	
R7576		ERDS2TJ390	CARBON 1/4W 39	1	
R7577		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R7578		ERDS2TJ103	CARBON 1/4W 10K	1	
R7579		ERDS2TJ103	CARBON 1/4W 10K	1	
R7596		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7651		ERJ6GEYJ103	CHIP 1/16W 10K	1	NV-G21EG
R7654		ERJ6GEYJ562	CHIP 1/16W 5.6K	1	NV-G21EG
R7655		ERDS2TJ472	CARBON 1/4W 4.7K	1	NV-G21EG/EO/EV
R7655		ERJ6GEYJ472	CHIP 1/16W 4.7K	1	NV-G21B
R7656		ERJ6GEYJ151	CHIP 1/16W 150	1	NV-G21EG
R7657		ERDS2TJ104	CARBON 1/4W 100K	1	
R7658		ERDS2TJ393	CARBON 1/4W 39K	1	
R7659		ERDS2TJ822	CARBON 1/4W 8.2K	1	
R7661		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R7662		ERDS2TJ393	CARBON 1/4W 39K	1	
R7663		ERDS2TJ222	CARBON 1/4W 2.2K	1	
R7664		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R8001		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R8002		ERJ6GMYJ221	CHIP 1/16W 220	1	
R8003		ERJ6GMYJ821	CHIP 1/16W 820	1	
SW3501		VSS0152	SWITCH	1	
SW3502		ESD3228	SWITCH	1	NV-G21EG
T703		EIV5EC013A	TRANSFORMER	1	NV-G21EG/EO/EV
T703		EIV5EC005A	TRANSFORMER	1	NV-G21B
T704		EIV5EC006A	TRANSFORMER	1	NV-G21EG/EO/EV
T704		EIV5EC007A	TRANSFORMER	1	NV-G21B
T710		EULBEF022	FILTER	1	NV-G21EG
T711		EIS5EC004A	TRANSFORMER	1	NV-G21EG/EO/EV
T711		EIS5EC011A	TRANSFORMER	1	NV-G21B
T851		ELM7Q207A	COIL	1	NV-G21EG
T4001		EIQ7QF001B	IF TRANSFORMER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
VR301		EVND3AA00B22	VARIABLE 200	1	
VR701		EVND4AA00B23	VARIABLE 2K	1	NV-G21EG
VR701		EVM3ACA00B23	VARIABLE 2K	1	NV-G21B
VR701		EVN3AGA00B23	VARIABLE 2K	1	NV-G21EO/EV
VR702		EVM3AGA00B23	VARIABLE 2K	1	NV-G21EG
VR702		EVM3ACA00B23	VARIABLE 2K	1	NV-G21EO/EV
VR741		EVN38CA00B14	VARIABLE 10K	1	
VR751		EVN38CA00B53	VARIABLE 5K	1	
VR801		EVND1AA00B52	VARIABLE 500	1	
VR2001		EVND3AA00B54	VARIABLE 50K	1	
VR2002		EVND3AA00B15	VARIABLE 100K	1	
VR2010		EVL51MA00B25	VARIABLE 200K	1	
VR2011		EVND3AA00B15	VARIABLE 100K	1	
VR2013		EVN38CA00B23	VARIABLE 2K	1	
VR3012		EVND3AA00B22	VARIABLE 200	1	
VR4001		EVND3AA00B14	VARIABLE 10K	1	
VR4002		EVND3AA00B25	VARIABLE 200K	1	
VR7502		EVND3AA00B14	VARIABLE 10K	1	
VR7660		EVN38CA00B23	VARIABLE 2K	1	
X201		VSX0066	CRYSTAL OSCILLATOR	1	
X710		EFCH38MSP1	SAW FILTER	1	NV-G21EG/EO/EV
X710		EFCH36MSP1	SAW FILTER	1	NV-G21B
X711		EFCS5R5MW5	FILTER	1	NV-G21EG/EO/EV
X711		EFCS6R0MW5	FILTER	1	NV-G21B
X712		EFCS5R5MS5	FILTER	1	NV-G21EG/EO/EV
X712		EFCS6R0MS5	FILTER	1	NV-G21B
X715		ELB5A043	FILTER	1	NV-G21EG
X716		EFCA40R40M1	FILTER	1	NV-G21EG
X717		ELB5A048	TRANSFORMER	1	NV-G21EG
X801		VSX0162A	CRYSTAL OSCILLATOR	1	
X3501		VSX0099	CRYSTAL OSCILLATOR	1	
X6001		EF0FC3584A5	CRYSTAL OSCILLATOR	1	
X7504		EFBAA40D101	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VMC0075	HEAT SINK FIX SPRING	1	
		VSC1689	HEAT SINK	1	
		VSC1068	SHIELD CASE	1	
		VJF0004	WIRE SADLE	1	
		VWJ0271	FLAT CABLE (8P)	1	P6004-P7501
		VWJ05DW200MM	FLAT CABLE (5P)	1	P1503-P6002
		VJF0330	PURSE LOCK	1	
		VMZ0960	HEAT SINK BARRIER	1	
		VSC2048	SHIELD CASE	1	NV-G21EG/EO/EV
		VJF0215	BAIND	4	
		VEJ0546	REAR JACK	1	NV-G21EG
		VEJ0545	REAR JACK	1	NV-G21B
		VEJ0547	REAR JACK	1	NV-G21EO/EV
		VJF0236	INPUT SELECT PACK C.B.A.	2	NV-G21EG/EO/EV
			SUPPORTER		
		VKH0105	HOOK	1	NV-G21B
		XNG3BS	NUT	1	NV-G21B
		VJH0417	RF & ANT. BOARD	1	NV-G21EG
		VJH0418	RF & ANT. BOARD	1	NV-G21B/EO/EV
		VSC1788	SHIELD CASE (TOP)	1	
		VSC1789	SHIELD CASE (MAIN)	1	
		VSC1888	SHIELD CASE (BOTTOM)	1	
		TNV57470F1	TUNER	1	NV-G21EG
		TNV87452F2	TUNER	1	NV-G21B
		TNV57475F2	TUNER	1	NV-G21EO/EV
		VMP1040	DEMODU. SUPPORT ANGLE	1	
	■	VEP05097E	HEAD AMP C.B.A.		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CAPACITORS		
C501		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C502		ECUX1H820JCN	CHIP 50V 82P	1	
C503		ECUX1H181KBN	CHIP 50V 180P	1	
C504		ECUX1H330JCN	CHIP 50V 33P	1	
C505		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C506		ECUX1H473ZFN	CHIP 50V 0.047U	1	
C507		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C509		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C510		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C511		ECUX1E104ZFN	CHIP 25V 0.1U	1	
C512		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C513		ECEA0JK220	ELECTROLYTIC 6.3V 22U	1	
C514		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C515		ECUX1H102KBN	CHIP 50V 1000P	1	
C516		ECUX1H150JCN	CHIP 50V 15P	1	
C517		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C518		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C519		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C520		ECUX1H150JCN	CHIP 50V 15P	1	
C521		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C522		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C523		ECUX1H150JCN	CHIP 50V 15P	1	
C524		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C525		ECUX1H102KBN	CHIP 50V 1000P	1	
C527		ECKF1H102KB	CERAMIC 50V 1000P	1	
C528		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C529		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C530		ECUX1H473ZFN	CHIP 50V 0.047U	1	
C531		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C533		ECUX1H560JCN	CHIP 50V 56P	1	
C534		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C537		ECUX1H150JCN	CHIP 50V 15P	1	
C538		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C539		ECUX1H103ZFN	CHIP 50V 0.01U	1	
IC501		AN3224K	IC	1	
IC502		AN3311S	IC	1	
L501		VLQEL05F101K	COIL 100UH	1	
L502		VLQEL05F820K	COIL 82UH	1	
L503		VLQEL05F151K	COIL 150UH	1	
L505		VLQEL05F101K	COIL 100UH	1	
L507		VLQEL05F270K	COIL 27UH	1	
P002		VJS1927	CONNECTOR (FEMALE)	1	
P501		VJP1248T	CONNECTOR(MALE) 8P	1	
P502		VJP1233T	CONNECTOR(MALE) 6P	1	
Q501		2SB709	TRANSISTOR CHIP	1	
			RESISTORS		
R501		ERJ6GMYJ561	CHIP 1/16W 560	1	
R502		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R503		ERJ6GMYJ222	CHIP 1/16W 2.2K	1	
R504		ERJ6GMYJ331	CHIP 1/16W 330	1	
R506		ERJ6GMYJ471	CHIP 1/16W 470	1	
R508		ERJ6GMYJ100	CHIP 1/16W 10	1	
R509		ERJ6GMYJ100	CHIP 1/16W 10	1	
R510		ERJ6GMYJ561	CHIP 1/16W 560	1	
R511		ERJ6GMYJ821	CHIP 1/16W 820	1	
R512		ERJ6GMYJ821	CHIP 1/16W 820	1	
R515		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R516		ERJ6GMYJ152	CHIP 1/16W 1.5K	1	
R517		ERJ6GMYJ391	CHIP 1/16W 390	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R522		ERJ6GMYJ561	CHIP 1/16W 560	1	
R524		ERJ6GMYJ334	CHIP 1/16W 330K	1	
VR501		EVND1AA00B23	VARIABLE 2K	1	
VR502		EVND1AA00B13	VARIABLE 1K	1	
			MISCELLANEOUS		
		VSC1832	SHIELD CASE (TOP)	1	
		VSC1833	SHIELD CASE (MAIN)	1	
		VSC1834	SHIELD CASE (BOTTOM)	1	
	■	VEP06409A	OPERATION C.B.A.		
D6201		LN81RCPHL	LED	1	
D6202		LN38GCPPSVT	LED	1	
D6203		MA165	DIODE	1	
P6201		VJP1249T	CONNECTOR(MALE) 9P	1	
P6202		VJS1952	CONNECTOR (FEMALE)	1	
			RESISTORS		
R6201		ERJ6GMYJ471	CHIP 1/16W 470	1	
R6202		ERJ6GMYJ181	CHIP 1/16W 180	1	
R6203		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R6204		ERJ6GMYJ392	CHIP 1/16W 3.9K	1	
R6205		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
SW6201		EVQQS307K	SWITCH	1	
SW6202		EVQQS307K	SWITCH	1	
SW6203		ESD14314	SWITCH	1	
VR2007		EVUFSAEC4B15	VARIABLE 1M	1	
VR2008		EVUFSAEC4B15	VARIABLE 1M	1	
VR3004		EVUJ16EC4B24	VARIABLE 20K	1	
			MISCELLANEOUS		
		KL-04	LED SPACER	1	D6201
		VGU3364	SLIDE SWITCH KNOB	1	
		VMD0504	LED HOLDER	1	D6202
	■	VEP07394A	TIMER C.B.A.		INCLUDING IR RECIVER
					C.B.A.(VEP06380B)
					NV-G21EG
	■	VEP07394B	TIMER C.B.A.		INCLUDING IR RECIVER
					C.B.A.(VEP06380B)
					NV-G21B
	■	VEP07394C	TIMER C.B.A.		INCLUDING IR RECIVER
					C.B.A.(VEP06380B)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CAPACITORS		
C6701		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C6702		ECKF1H102KB	CERAMIC 50V 1000P	1	
C6703		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C6704		ECEA1HK3R3	ELECTROLYTIC 50V 3.3U	1	
C7501		ECUX1H080DCN	CHIP 50V 8P	1	
C7502		ECRHA030E41	TRIMER 30P	1	
C7503		ECEA1HKR22	ELECTROLYTIC 50V 0.22U	1	
C7504		ECUX1H220JCN	CHIP 50V 22P	1	
C7505		ECUX1H330JCN	CHIP 50V 33P	1	
C7506		ECEA0JKS101	ELECTROLYTIC 6.3V 100U	1	
C7510		ECEA1HK100	ELECTROLYTIC 50V 10U	1	
C7511		ECEA0JK221	ELECTROLYTIC 6.3V 220U	1	
C7512		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C7514		ECUX1H103ZFN	CHIP 50V 0.01U	1	
C7515		ECEA0JK470	ELECTROLYTIC 6.3V 47U	1	
C7586		ECUX1H102KBN	CHIP 50V 1000P	1	
C7588		ECUX1H331KBN	CHIP 50V 330P	1	
D6701		PN323B	PHOTO DIODE	1	
D7501		11ES1	DIODE	1	
D7502		MA4075	DIODE	1	
D7503		MA165	DIODE	1	
D7520		MA165	DIODE	1	NV-G21EG/EO/EV
D7521		MA165	DIODE	1	NV-G21B
D7523		MA165	DIODE	1	NV-G21B
D7525		MA165	DIODE	1	
D7527		MA165	DIODE	1	NV-G21EG
D7528		MA165	DIODE	1	NV-G21EG/B
D7529		MA165	DIODE	1	
D7530		MA165	DIODE	1	NV-G21B
D7531		MA165	DIODE	1	NV-G21B
D7533		MA165	DIODE	1	
D7534		MA165	DIODE	1	
D7535		MA165	DIODE	1	
D7536		MA165	DIODE	1	
D7537		MA165	DIODE	1	
D7538		MA165	DIODE	1	
D7539		MA165	DIODE	1	
D7540		MA165	DIODE	1	
D7541		MA165	DIODE	1	
D7542		MA165	DIODE	1	
D7543		MA165	DIODE	1	NV-G21B
DP7501		VSL0101A	DISPLAY	1	
IC6701		UPC1490HA	IC	1	
IC7501		MN15283VJU	IC	1	
IC7502		MN1220	IC	1	
IC7504		MN1280P	IC	1	
L7501		VLQEL05F221K	COIL 220UH	1	
P7501		VJS1678	CONNECTOR (FEMALE)	1	
P7502		VJS1937	CONNECTOR (FEMALE)	1	
P7506		VJP1244T	CONNECTOR(MALE) 4P	1	NV-G21EG/EO/EV
P7507		VJP1243T	CONNECTOR(MALE) 3P	1	
Q7501		2SD637	TRANSISTOR	1	
QR7501		UN1113	TRANSISTOR-RESISTOR	1	
QR7502		UN1213	TRANSISTOR-RESISTOR	1	
QR7503		UN1112	TRANSISTOR-RESISTOR	1	
			RESISTORS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6701		ERDS2TJ154	CARBON 1/4W 150K	1	
R6702		ERDS2TJ100	CARBON 1/4W 10	1	
R7501		ERJ6GMYJ122	CHIP 1/16W 1.2K	1	
R7502		ERJ6GMYJ224	CHIP 1/16W 220K	1	
R7503		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7504		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7507		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R7508		ERJ6GMYJ470	CHIP 1/16W 47	1	
R7509		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R7510		ERJ6GMYJ223	CHIP 1/16W 22K	1	
R7511		ERJ6GMYJ473	CHIP 1/16W 47K	1	
R7527		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7528		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7529		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7530		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R7531		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R7532		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R7533		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R7534		ERJ6GMYJ182	CHIP 1/16W 1.8K	1	
R7535		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R7536		ERJ6GMYJ103	CHIP 1/16W 10K	1	
R7537		ERJ6GMYJ102	CHIP 1/16W 1K	1	
SW7501		EVQQS307K	SWITCH	1	
SW7502		EVQQS307K	SWITCH	1	
SW7503		EVQQS307K	SWITCH	1	
SW7504		EVQQS307K	SWITCH	1	
SW7505		EVQQS307K	SWITCH	1	
SW7506		EVQQS307K	SWITCH	1	
SW7507		EVQQS307K	SWITCH	1	
SW7508		EVQQS307K	SWITCH	1	
SW7510		EVQQS307K	SWITCH	1	NV-G21EG/EO/EV
SW7511		EVQQS307K	SWITCH	1	
SW7512		EVQQS307K	SWITCH	1	NV-G21EG/EO/EV
SW7513		EVQQS307K	SWITCH	1	
VR6701		EVMLGGA00B15	VARIABLE 100K	1	
X7501		VSX0140A	CRYSTAL OSCILLATOR	1	
X7502		VSX0094A	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VJF0398	DISPLAY HOLDER	1	
		VKC0280	HINGE	2	
		VSC1844	IR SHIELD CASE (MAIN)	1	
		VSC1928	IR SHIELD CASE (BOTTOM)	1	
		VSC1929	IR SHIELD BOARD	1	
	■	VEP07395A	CH SELECT C.B.A.		NV-G21EG
	■	VEP07395B	CH SELECT C.B.A.		NV-G21B
	■	VEP07395C	CH SELECT C.B.A.		NV-G21EO/EV
			CAPACITORS		
C7552		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7554		ECEA1VK220	ELECTROLYTIC 35V 22U	1	
C7555		ECQB1H273KH	MYLAR 50V 0.027U	1	
C7556		ECQV1H823JZ	MYLAR 50V 0.082U	1	
C7557		ECQV1H683JZ	MYLAR 50V 0.068U	1	
C7558		ECKF1H103ZF	CERAMIC 50V 0.01U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C7559		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C7560		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7561		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7563		ECEA1CK100	ELECTROLYTIC 16V 10U	1	
C7564		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7565		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7566		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C7567		ECKF1H103ZF	CERAMIC 50V 0.01U	1	NV-G21EG
C7569		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
D7551		MA165	DIODE	1	
D7558		MA165	DIODE	1	
D7559		MA165	DIODE	1	
D7560		MA165	DIODE	1	
IC7551		AN5034	IC	1	NV-G21EG
IC7551		AN5033	IC	1	NV-G21B/EO/EV
IC7552		AN6913	IC	1	
IC7553		MN4066B	IC	1	
P7554		VJP1230T	CONNECTOR(MALE) 3P	1	
P7555		VJP1235T	CONNECTOR(MALE) 8P	1	
P7556		VJP1233T	CONNECTOR(MALE) 6P	1	
P7557		VJP1231T	CONNECTOR(MALE) 4P	1	
QR7551		UN1213	TRANSISTOR-RESISTOR	1	
QR7553		UN1112	TRANSISTOR-RESISTOR	1	NV-G21EG
QR7554		UN1112	TRANSISTOR-RESISTOR	1	NV-G21EG
QR7555		UN1213	TRANSISTOR-RESISTOR	1	NV-G21EG
QR7556		UN1213	TRANSISTOR-RESISTOR	1	
QR7557		UN1213	TRANSISTOR-RESISTOR	1	
QR7558		UN1213	TRANSISTOR-RESISTOR	1	
QR7559		UN1213	TRANSISTOR-RESISTOR	1	
QR7561		UN1213	TRANSISTOR-RESISTOR	1	NV-G21EG
			RESISTORS		
R7551		ERDS2TJ104	CARBON 1/4W 100K	1	
R7554		ERDS2TJ102	CARBON 1/4W 1K	1	
R7555		ERDS2TJ102	CARBON 1/4W 1K	1	
R7556		ERDS2TJ473	CARBON 1/4W 47K	1	
R7557		ERDS2TJ124	CARBON 1/4W 120K	1	
R7558		ERDS2TJ104	CARBON 1/4W 100K	1	
R7559		ERDS2TJ473	CARBON 1/4W 47K	1	
R7560		ERDS2TJ473	CARBON 1/4W 47K	1	
R7561		ERDS2TJ223	CARBON 1/4W 22K	1	
R7562		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7563		ERDS2TJ332	CARBON 1/4W 3.3K	1	NV-G21EG
R7565		ERDS2TJ102	CARBON 1/4W 1K	1	
R7566		ERDS2TJ334	CARBON 1/4W 330K	1	NV-G21B/EO/EV
R7567		ERDS2TJ104	CARBON 1/4W 100K	1	NV-G21B/EO/EV
R7568		ERDS2TJ103	CARBON 1/4W 10K	1	
R7570		ERDS2TJ103	CARBON 1/4W 10K	1	NV-G21EG/EO/EV
R7570		ERDS2TJ123	CARBON 1/4W 12K	1	NV-G21B
R7580		ERDS2TJ103	CARBON 1/4W 10K	1	
R7581		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R7582		ERDS2TJ682	CARBON 1/4W 6.8K	1	
R7583		ERDS2TJ473	CARBON 1/4W 47K	1	
R7584		ERDS2TJ393	CARBON 1/4W 39K	1	NV-G21EG/EO/EV
R7584		ERDS2TJ333	CARBON 1/4W 33K	1	NV-G21B
R7585		ERDS2TJ473	CARBON 1/4W 47K	1	
R7586		ERDS2TJ563	CARBON 1/4W 56K	1	
R7589		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7590		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7599		ERDS2TJ103	CARBON 1/4W 10K	1	NV-G21EG

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
VR7502		EVND3AA00B14	VARIABLE 10K	1	
	■	VEP01264H	POWER C.B.A.		INCLUDING THE SUB
					POWER C.B.A.
					(VEP00H48A) NV-G21E
					<!>
	■	VEP01264J	POWER C.B.A.		INCLUDING THE SUB
					POWER C.B.A.
					(VEP00H48A)
					NV-G21B/EO/EV <!>
			CAPACITORS		
C1001		VCK0041	250V 330P	1	<!>
C1002		VCK0041	250V 330P	1	<!>
C1003		VCK0041	250V 330P	1	<!>
C1004		VCK0041	250V 330P	1	<!>
C1005		VCK0045	250V 1500P	1	<!>
C1006		VCK0045	250V 1500P	1	<!>
C1007		VCK0045	250V 1500P	1	<!>
C1008		VCK0045	250V 1500P	1	<!>
C1009		ECQU2A104MN	MYLAR 250V 0.100U	1	<!>
C1010		ECOS2GU101F	ELECTROLYTIC 400V 100U	1	
C1011		ECQE6473MZ	MYLAR 630V 0.047U	1	
C1012		ECEA1CGE470	ELECTROLYTIC 16V 47U	1	
C1013		ECQB1H472KH	MYLAR 50V 4700P	1	
C1014		ECQV1H474JZ	MYLAR 50V 0.47U	1	
C1018		ECEA1HGE470	ELECTROLYTIC 50V 47U	1	
C1019		ECEA1EGE102	ELECTROLYTIC 25V 1000U	1	
C1020		ECEA1EGE102	ELECTROLYTIC 25V 1000U	1	
C1021		ECEA1CGE100	ELECTROLYTIC 16V 10U	1	
C1022		ECEA1HGE470	ELECTROLYTIC 50V 47U	1	
C1023		ECEA1AGE102Z	ELECTROLYTIC 10V 1000U	1	
C1024		ECEA0JFE102X	ELECTROLYTIC 6.3V 1000U	1	
C1025		ECEA1HGE470	ELECTROLYTIC 50V 47U	1	
C1027		ECKD3D151KB	CERAMIC 2KV 150P	1	
C1030		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C1031		VCK0045	250V 1500P	1	<!>
C1032		VCK0045	250V 1500P	1	<!>
C1033		VCK0041	250V 330P	1	<!>
C1034		VCK0041	250V 330P	1	<!>
C1035		VCK0045	250V 1500P	1	<!>
C1036		VCK0045	250V 1500P	1	<!>
C1037		ECQU2A224MN	MYLAR 250V 0.22U	1	<!>
C1038		VCK0045	250V 1500P	1	<!>
C1039		ECEA1CGE470	ELECTROLYTIC 16V 47U	1	
C1040		ECQP1101JZ	MYLAR 125V 100P	1	
C1041		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
C1042		ECKF1H103ZF	CERAMIC 50V 0.01U	1	
D1001		S1WBA60	DIODE	1	<!>
D1002		ERA22-08	DIODE	1	
D1003		MA178	DIODE	1	
D1004		MA178	DIODE	1	
D1005		MA178	DIODE	1	
D1007		MA185	DIODE	1	
D1008		MA185	DIODE	1	
D1010		ERC30-02L3	DIODE	1	
D1012		MA4130L	DIODE	1	
D1013		MA185	DIODE	1	
D1015		ERA82-004	DIODE	1	
D1016		AK04V2	DIODE	1	
D1019		MA165	DIODE	1	
D1024		MA178	DIODE	1	
D1025		MA178	DIODE	1	
D1026		MA4082H	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D1027		ERC30-02L3	DIODE	1	
D1029		ENB461D-05A	SURGE ABSORBER 460V	1	
D1030		MA4082	DIODE	1	
			FUSES		
F1001		XBA2C16TB0	250V 1.6A	1	<!>
F1002		XBA2C25TB0	250V 2.5A	1	<!>
IC1001		STK5338	IC	1	
L1001		ELF18D428	COIL	1	<!>
L1002		ELC07D220	COIL 22U	1	
P1001		VJS1962	CONNECTOR (FEMALE)	1	
Q1001		STR10006C	TRANSISTOR	1	<!>
Q1004		2SD638	TRANSISTOR	1	(Q,R,S)
Q1011		2SB643	TRANSISTOR	1	(Q)
			RESISTORS		
R1002		ERF2AK2R2	WIRE WOUND 2W 2.2	1	<!>
R1003		ERDS2TJ474	CARBON 1/4W 470K	1	
R1004		ERDS2TJ474	CARBON 1/4W 470K	1	
R1005		ERDS2TJ474	CARBON 1/4W 470K	1	
R1006		ERDS2TJ474	CARBON 1/4W 470K	1	
R1007		ERG2ANJ683	METAL OXIDE 2W 68K	1	
R1008		ERW2PKR39	WIRE WOUND 2W 0.39	1	
R1009		ERG1SJ181	METAL OXIDE 1W 180	1	
R1012		ERQ12HJ6R8P	FUSE 1/2W 6.8	1	<!>
R1014		ERD2FCJ4R7	CARBON 2W 4.7	1	
R1015		ERQ12HJ1R0P	FUSE 1/2W 1	1	<!>
R1016		ERQ12HJ6R8P	FUSE 1/2W 6.8	1	<!>
R1017		ERG12ANJ182	METAL OXIDE 1/2W 1800	1	
R1025		ERDS2TJ562	CARBON 1/4W 5.6K	1	
R1028		ERDS2TJ271	CARBON 1/4W 270	1	
T1001		VLT0325	TRANSFORMER	1	<!>
			MISCELLANEOUS		
		VJS1972	INLET (MALE)	1	<!>
		VSC1831	SHIELD PLATE	1	
		VJF0381	FUSE HOLDER	4	<!>
	■	VEP07368C	VPS C.B.A.		NV-G21EG/EV
			CAPACITORS		
C7801		ECEA1CK220	ELECTROLYTIC 16V 22U	1	
C7802		ECQB1H223JH	MYLAR 50V 0.022U	1	
C7803		ECQV1H683JZ	MYLAR 50V 0.068U	1	
C7804		ECEA1HKNR47	ELECTROLYTIC 50V 0.47U	1	
C7805		ECCF1H150JC	CERAMIC 50V 15P	1	
C7806		ECQB1H102JH	MYLAR 50V 1000P	1	
C7807		ECKF1H471KB	CERAMIC 50V 470P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C7808		ECQB1H223JH	MYLAR 50V 0.022U	1	
C7809		ECKF1H271KB	CERAMIC 50V 270P	1	
C7810		ECCF1H101JC	CERAMIC 50V 100P	1	
C7811		ECCF1H180JC	CERAMIC 50V 18P	1	
C7812		ECCF1H820JC	CERAMIC 50V 82P	1	
C7814		ECKF1H102KB	CERAMIC 50V 1000P	1	
C7815		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C7816		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C7818		ECEA1CKN100	ELECTROLYTIC 16V 10U	1	
C7819		ECCF1H101JC	CERAMIC 50V 100P	1	
C7820		ECCF1H101JC	CERAMIC 50V 100P	1	
C7821		ECQB1H272JH	MYLAR 50V 2700P	1	
C7851		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C7852		ECEA1AK101	ELECTROLYTIC 10V 100U	1	
C7853		ECCF1H330JC	CERAMIC 50V 33P	1	
C7854		ECCF1H330JC	CERAMIC 50V 33P	1	
C7855		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7856		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
			DIODES		
D7851		MA165	DIODE	1	
			INTEGRATED CIRCUITS		
IC7801		SAA5235	IC	1	
IC7802		SAF1135P	IC	1	
IC7851		MN15834VEQ	IC	1	
IC7852		MN1280T	DIODE	1	
			COILS		
L7801		VLQ0193	COIL	1	
L7802		VLQEL05F101K	COIL 100UH	1	
L7803		VLQEL05F101K	COIL 100UH	1	
			CONNECTORS		
P7801		VJP1234T	CONNECTOR(MALE) 7P	1	
P7802		VJP1231T	CONNECTOR(MALE) 4P	1	
			TRANSISTORS		
Q7801		2SD636	TRANSISTOR	1	
Q7802		2SB641	TRANSISTOR	1	
Q7803		2SB641	TRANSISTOR	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR7851		UN1211	TRANSISTOR-RESISTOR	1	
QR7852		UN1213	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R7803		ERDS2TJ103	CARBON 1/4W 10K	1	
R7804		ERDS2TJ103	CARBON 1/4W 10K	1	
R7809		ERDS2TJ683	CARBON 1/4W 68K	1	
R7810		ERDS2TJ223	CARBON 1/4W 22K	1	
R7811		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7812		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R7813		ERDS2TJ102	CARBON 1/4W 1K	1	
R7814		ERDS2TJ102	CARBON 1/4W 1K	1	
R7815		ERDS2TJ102	CARBON 1/4W 1K	1	
R7816		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7817		ERDS2TJ103	CARBON 1/4W 10K	1	
R7818		ERDS2TJ221	CARBON 1/4W 220	1	
R7851		ERDS2TJ103	CARBON 1/4W 10K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
X7801		VSX0173	CRYSTAL OSCILLATOR	1	
X7851		EFOA4ROMO3C2	CRYSTAL OSCILLATOR	1	
	■	ENC87956	RF CONVERTER & ANTENA		NV-G21EG<!>
	■	ENC87952	BOOSTER UNIT		NV-G21B<!>
		ENC87954			NV-G21EO/EV<!>
			INTEGRATED CIRCUIT		
IC1		LA7051	IC	1	
			TRANSISTORS		
Q1		2SC2570A	TRANSISTOR	1	OR 2SC3355
Q2		2SC3130	TRANSISTOR	1	
			DIODES		
D1		MA1075	ZENER	1	
D2		HSM276S		1	
D3		MA166		1	
D4		MA166		1	NV-G21B
D5		MA166		1	
			NOTE:		
			THE OTHER PARTS FOR		
			RF CONVERTER & ANTENA		
			BOOSTER UNIT ARE		
			NOT AVAILABLE AS SPARE		
			PARTS.		
	■	VEP22066A	PROGRAMMABLE REMOTE		
			CONTROL UNIT C.B.A		
			CAPACITORS		
C1		ECEA0GKS101	ELECTROLYTIC 4V 100U	1	
C2		ECKF1H121KB	CERAMIC 50V 120P	1	
C3		ECKF1H121KB	CERAMIC 50V 120P	1	
C4		ECQB1H222KZ	MYLAR 50V 2200P	1	
			DIODES		
D1		SE303AY	DIODE	1	
D4		MA165	DIODE	1	
D5		MA165	DIODE	1	
D6		MA165	DIODE	1	
D7		MA165	DIODE	1	
D8		MA165	DIODE	1	
D9		MA165	DIODE	1	
			INTEGRATED CIRCUIT		
IC1		MN6011D	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			COMBINATION PART		
			(TRANSISTOR & RESISTORS)		
QR1		UN1231	TRANSISTOR - RESISTORS	1	
			RESISTOR		
R1		ERDS2TJ1RO	CARBON 1/4W 1.0	1	
			CRYSTAL OSCILLATOR		
X1		VSX0201	CRYSTAL OSCILLATOR	1	
	■	VEP66019D	DIGITAL SCANNER C.B.A.		NV-G21EG/EO/EV
		VEP66019E			NV-G21B
			CAPACITORS		
C01		ECEA0JK470I	ELECTROLYTIC 6.3V 47U	1	
C02		ECEA1HKN010I	ELECTROLYTIC 50V 1U	1	
C03		ECUX1E104ZFM	CHIP 25V 0.1U	1	
C04		ECUX1E104ZFM	CHIP 25V 0.1U	1	
C05		ECEA1HK010I	ELECTROLYTIC 50V 1U	1	
C06		ECEA1AKA470I	ELECTROLYTIC 10V 47U	1	
C07		ECUX1H330JCN	CHIP 50V 33P	1	
C08		ECUX1H330JCN	CHIP 50V 33P	1	
C09		ECUX1H103ZFN	CHIP 50V 0.01U	1	
D01		MA151WK	DIODE	1	
D02		MA151WK	DIODE	1	
D03		MA151WK	DIODE	1	
D04		MA151WK	DIODE	1	
D05		MA153	DIODE	1	
D06		SE303AY	DIODE	1	
IC01		UPD49HG88022	IC	1	NV-G21EG/EO/EV
IC01		UPD49HG87922	IC	1	NV-G21B
IC02		UPC324G2-T2	IC	1	
IC03		NJM78L02AA	IC	1	
L01		ELT3K017A	COIL	1	NV-G21EG/EO/EV
L01		ELT3K014C	COIL	1	NV-G21B
P01		VJP1229T	CONNECTOR(MALE) 2P	1	
Q01		2SB710	TRANSISTOR CHIP	1	(Q,R,S)
Q02		2SB710	TRANSISTOR CHIP	1	(Q,R,S)
Q03		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q04		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
			RESISTORS		
R01		ERJ6GMYJ470	CHIP 1/16W 47	1	
R02		ERJ6GMYJ102	CHIP 1/16W 1K	1	
R03		ERJ6GMYJ123	CHIP 1/16W 12K	1	
R04		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R05		ERJ6GMYJ202	CHIP 1/16W 2K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R06		ERJ6GMYJ244	CHIP 1/16W 240K	1	
R07		ERJ6GMYJ162	CHIP 1/16W 1.6K	1	
R10		ERJ8GCYK106	CHIP 1/8W 10M	1	
R11		ERJ6GMYJ105	CHIP 1/16W 1M	1	
R12		ERJ8GCYK106	CHIP 1/8W 10M	1	
R13		ERJ6GMYJ361	CHIP 1/16W 360	1	
R14		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R15		ERJ6GMYJ332	CHIP 1/16W 3.3K	1	
R16		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R17		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R18		ERDS2EJ6R8	CARBON 1/4W 6.8	1	
R20		ERJ6GMYJ104	CHIP 1/16W 100K	1	
R23		ERJ6GMYJ682	CHIP 1/16W 6.8K	1	
R24		ERJ6GMYJ102	CHIP 1/16W 1K	1	
SW01		VSS0211	SWITCH	1	
SW02		VSP0221	SWITCH	1	
X01		VSX0199	CRYSTAL OSCILLATOR	1	
X02		VSQ0552	BUZZER	1	
	■	VEP00H22A	CYLINDER DRIVE C.B.A		
			CAPACITORS		
C2901		ECEA1VSN2R2	ELECTROLYTIC 35V 2.2U	1	
C2902		ECEA1VSN2R2	ELECTROLYTIC 35V 2.2U	1	
C2903		ECEA1VSN2R2	ELECTROLYTIC 35V 2.2U	1	
C2904		ECEA1HKSR22	ELECTROLYTIC 50V 22U	1	
C2905		ECEA1HKSR22	ELECTROLYTIC 50V 22U	1	
C2906		ECEA1HKSR22	ELECTROLYTIC 50V 22U	1	
C2907		ECEA1HKSR33	ELECTROLYTIC 50V 33U	1	
C2908		ECQV1H473	MYLAR 50V 0.047U	1	
C2909		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C2910		ECEA1CKS100	ELECTROLYTIC 16V 10U	1	
			INTEGRATED CIRCUIT		
IC2901		AN3812K	IC	1	
			RESISTOR		
R2901		ERX12ANJR68	METAL OXIDE 1/4W 0.68	1	
			CONNECTORS		
P2901		VJP1232		1	
P2902		VJP1927		1	
			MISCELLANEOUS		
		VSC1843	SINK HEAT	1	
		VMA6884	MAIN HOLDER	1	
	■	VEP00H30A	MECHANISM CONNECTION		
			C.B.A. CONNECTORS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CONNECTORS		
P1504		VJP1939	12P	1	
P1505		VJP1242T	2P	1	
			RESISTORS		
R1501		ERDS2TJ223	CARBON 1/4W 22K	1	
	■	VEP00H31A	REEL SENSOR C.B.A.		
			PHOTO TRANSISTOR		
			INTEGRATED CIRCUITS		
IC1501		ON2170		1	
			CONNECTOR		
P1506		VJP1242	2P	1	
	■	VXA2689	LED C.B.A. UNIT		
			DIODES		
D1501		GL450	PHOTO DIODE	1	
			MISELLANEOUS		
		VMD0911	LED HOLDER	1	
		VWJ0254	FLEXISIBLE C.B	1	
	■	VEP00H34A	TAKEUP PHOTO Tr C.B.A.		
			CAPACITORS		
C1502		ECKW1H102KBN	CERAMIC 50V 1000P	1	
			RESISTORS		
R1503		ERDS2TJ222	CARBON 1/4W 2.2K	1	
			CONNECTORS		
P1503		VJS1936		1	
P1508		VJP1242T		1	
			TRANSISTOR		
Q1502		PN150NV	PHOTO TRANSISTOR	1	
			MISCELLANEOUS		
		VMD0645	PHOTO TR HOLDER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP00H35A	SUPPLY PHOTO Tr C.B.A.		
			CAPACITOR		
C1501		ECKW1H102KBN	CERAMIC 50V 1000P	1	
			TRANSISTOR		
Q1501		PN150NV	PHOTO TRANSISTOR	1	
			MISCELLANEOUS		
		VMD0645	PHOTO TR HOLDER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks

3.VW-VPS1

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.
4.The P.C.Board units marked width'■'show below the main assembled parts.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP07368B	VPS C.B.A.		
			CAPACITORS		
C7801		ECEA1CK220	ELECTROLYTIC 16V 22U	1	
C7802		ECQB1H223JH	MYLAR 50V 0.022U	1	
C7803		ECQV1H683JZ	MYLAR 50V 0.068U	1	
C7804		ECEA1HKNR47	ELECTROLYTIC 50V 0.47U	1	
C7805		ECCF1H150JC	CERAMIC 50V 15P	1	
C7806		ECQB1H102JH	MYLAR 50V 1000P	1	
C7807		ECKF1H471KB	CERAMIC 50V 470P	1	
C7808		ECQB1H223JH	MYLAR 50V 0.022U	1	
C7809		ECKF1H271KB	CERAMIC 50V 270P	1	
C7810		ECCF1H101JC	CERAMIC 50V 100P	1	
C7811		ECCF1H180JC	CERAMIC 50V 18P	1	
C7812		ECCF1H820JC	CERAMIC 50V 82P	1	
C7814		ECKF1H102KB	CERAMIC 50V 1000P	1	
C7815		VCYD1C104MR1	SEMICONDUCTOR 16V 0.1U	1	
C7816		ECEA1EK4R7	ELECTROLYTIC 25V 4.7U	1	
C7818		ECEA1CKN100	ELECTROLYTIC 16V 10U	1	
C7819		ECCF1H101JC	CERAMIC 50V 100P	1	
C7820		ECCF1H101JC	CERAMIC 50V 100P	1	
C7821		ECQB1H272JH	MYLAR 50V 2700P	1	
C7851		ECQV1H104JZ	MYLAR 50V 0.1U	1	
C7852		ECEA1AK101	ELECTROLYTIC 10V 100U	1	
C7853		ECCF1H330JC	CERAMIC 50V 33P	1	
C7854		ECCF1H330JC	CERAMIC 50V 33P	1	
C7855		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
C7856		ECEA1HK010	ELECTROLYTIC 50V 1U	1	
			DIODES		
D7851		MA165	DIODE	1	
			INTEGRATED CIRCUITS		
IC7801		SAA5235	IC	1	
IC7802		SAF1135P	IC	1	
IC7851		MN15834VEQ	IC	1	
IC7852		MN1280T	DIODE	1	
			COILS		
L7801		VLQ0193	COIL	1	
L7802		VLQEL05F101K	COIL 100UH	1	
L7803		VLQEL05F101K	COIL 100UH	1	
			CONNECTORS		
P7801		VJP1234T	CONNECTOR(MALE) 7P	1	
P7802		VJP1231T	CONNECTOR(MALE) 4P	1	
			TRANSISTORS		
Q7801		2SD636	TRANSISTOR	1	
Q7802		2SB641	TRANSISTOR	1	
Q7803		2SB641	TRANSISTOR	1	
			COMBINATION PARTS		
			(TRANSISTOR & RESISTORS)		
QR7851		UN1211	TRANSISTOR-RESISTOR	1	
QR7852		UN1213	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R7803		ERDS2TJ103	CARBON 1/4W 10K	1	
R7804		ERDS2TJ103	CARBON 1/4W 10K	1	
R7809		ERDS2TJ683	CARBON 1/4W 68K	1	
R7810		ERDS2TJ223	CARBON 1/4W 22K	1	
R7811		ERDS2TJ332	CARBON 1/4W 3.3K	1	
R7812		ERDS2TJ152	CARBON 1/4W 1.5K	1	
R7813		ERDS2TJ102	CARBON 1/4W 1K	1	
R7814		ERDS2TJ102	CARBON 1/4W 1K	1	
R7815		ERDS2TJ102	CARBON 1/4W 1K	1	
R7816		ERDS2TJ472	CARBON 1/4W 4.7K	1	
R7817		ERDS2TJ103	CARBON 1/4W 10K	1	
R7818		ERDS2TJ221	CARBON 1/4W 220	1	
R7851		ERDS2TJ103	CARBON 1/4W 10K	1	
X7801		VSX0173	CRYSTAL OSCILLATOR	1	
X7851		EF0A4R0M03C2	CRYSTAL OSCILLATOR	1	